

BUSINESS WEEK

WEEK
AGO

YEAR
AGO

START
OF WAR
1939



More bombs for world-wide offensive: Boeing's new Flying Fortress carries them on outside racks as well as inside bays.

NESS
EK
EX

PUBLISHED BY THE MCGRAW-HILL PUBLISHING COMPANY

UNIV OF MICH
GENL LIBRT
ANN ARBOR MICH

Congressional Medal of—HONOR?

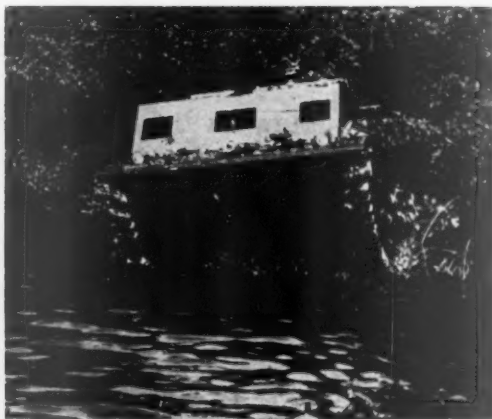
Tonight mothers are holding the horrible telegrams saying their sons have died for their country, in ghastly pain, in far-off, lonely places.

Tonight the newspapers tell of strife and strikes, of political "deals", of ranting demagogues and false leaders, of crowded night clubs, black markets, *greed*.

It is easy to ask ten million American boys to show the ultimate in physical courage. The best that those of us left at home can do is to show *moral* courage — the courage to forget all private gain and selfish power for the victory of America.



Photo courtesy White Motor Co.



A million pounds of rubber products every day — and 7 "E" awards

A typical example of B. F. Goodrich improvement in rubber

THE picture in the lower corner are little rings of synthetic rubber being inspected under a powerful glass. The rings like these are large and are so small you could hardly see the point of a pencil through them, several thousand weighing only a few pounds. Yet all are necessary hydraulic seals in war planes.

From these up to rubber pontons so they can support bridges, there are more than a thousand distinct types of rubber war products — and for each in producing them plus other accomplishments, men and women at B. F. Goodrich plants have received the Army-Navy "E" award.

The output of these plants has averaged far beyond a million pounds a day of finished rubber war products, plus big tonnages of war goods not even made of rubber.

Some of the products made in these plants are original B. F. Goodrich developments—such as rubber springs for the "centipedes that swim," tanks that can travel on land or water (photo, upper right); "square tires," the endless band tracks for the army's half-track vehicles (upper left); airplane De-Icers (lower right); also V-belts for powder and chemical plants, made of rubber that can conduct electricity, thus preventing sparks

that might blow up the whole place; rubber bearings for ships; Koroseal insulation for battleship cable — and other things we don't even have space enough to mention. In some cases the "developments" are improvements in familiar products or faster manufacturing methods.

The Army-Navy "E" is awarded for excellence in the production of war materials. It has been awarded at B. F. Goodrich plants in California, Kentucky, Massachusetts, New York, Ohio, Tennessee and Texas. The B. F. Goodrich Company, Akron, O.

B.F. Goodrich
RUBBER and SYNTHETIC products



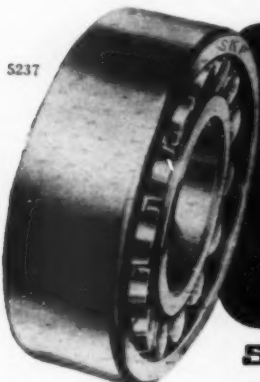
There's no place like home . . .



Americans are learning a lot of almost-forgotten facts about Home these days. We're learning that home is a mighty fine place . . . in fact, there's no place like it.

Travelling long distances just for a trip simply isn't being done, and naturally, all of us know that we can't waste gasoline. That doesn't mean we can't relax from our War Work. Vacations are essential to production. Short weekend trips, however, place a terrific burden on transportation facilities, and many of us are learning that home is a great place to relax. We're learning that the neighbors are swell folks. A new community spirit is growing.

Here at **BOSF**, that community spirit unites us in a single great task. We're working together to turn out more ball and roller bearings for the wheels of Victory. We look on our job as a share in protecting American homes.



SKF
BALL AND ROLLER
BEARINGS

SKF INDUSTRIES INC., PHILA., PA.

BUSINESS WEEK

WHERE TO FIND IT

Washington Bulletin . . .
Figures of the Week . . .
The Outlook . . .
General News . . .
War Business Checklist . . .
The War—and Business Abroad . . .
Canada . . .
Labor . . .
Marketing . . .
The Regional Market Outlook . . .
Commodities . . .
Production . . .
New Products . . .
Finance . . .
The Markets . . .
The Trading Post . . .
The Trend . . .

THE PICTURES

7, 8—Harris & Ewing; 14—(left) Press A (right) Acme; 19—Int. News; 20—Acme; 21—Harris & Ewing; 52, 76—Acme; 78—Harris & Ewing; 88—Acme; 98—Wide W

THE STAFF

Publisher, Willard Chevalier • **Manager,** Montgomery • **Editor,** Ralph Smith • **Managing Editor,** Louis Engel • **Assistant Managing Editor,** Clark R. Pace • **News Editors,** Richard L. Raymond, A. Dodd (Illustration).
Foreign, John F. Chapman • **Production,** W. Dodge • **Law,** J. A. Gerardi • **Finance,** McK. Gillingham • **Marketing,** E. A. Gram (Washington) • **Industry,** Clarence Judd (Cleveland) • **Economics,** Sanford S. Parker • **Law,** M. S. Pitzele • **Washington,** Irvin D. Foss • **L. Cobbs,** Stuart Hamilton, Phyllis White.
Editorial Assistants, Brownlee Haydon (Assistant Foreign Editor), John Hoffman, C. Arthur La Richard M. Machol, M. J. Montgomery, Arthur Richter, Margaret Timmerman, Doris I. Whit Statistician, Alice McFall • **Librarian,** Ruth W
Editorial Bureaus—Chicago, Arthur Van V singing, Mary Richards • **Detroit,** Stanley Bams • **San Francisco,** Cameron Robertson Washington, McGraw-Hill Bureau, Staff espondents throughout the United States, and Canada, Latin America, Great Britain and Soviet Union.
District Managers—Atlanta, R. C. Maulbly Boston, Nelson Bond • **Chicago,** Arthur wardine, R. N. Whittington • **Cleveland,** E. DeGraff, S. D. R. Smith • **Detroit,** C. Crandall • **Los Angeles,** R. N. Phelan • **New York,** H. E. Choate, J. R. Hayes, J. H. Ste son • **Philadelphia,** H. C. Sturm • **San Francisco,** J. W. Otterson • **St. Louis,** G. G. Sears.

BUSINESS WEEK • AUGUST 7 • NUMBER
(with which is combined The Annalist and Magazine of Business). Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw, Founder and Honorary Chairman. Publication office, 99-129 North Broadway, Albany 1, New York. **EDITORIAL AND EXECUTIVE OFFICES,** 330 W. 42ND ST., NEW YORK 18, N. Y. James H. McGraw, Jr., President; Howard Ehrlich, Executive Vice-President; C. W. McGraw, Treasurer; J. A. Gerardi, Secretary. Allow ten days for change of address. About 100,000 copies are printed each week. Subscriptions address: J. E. Blackburn, Jr., Director of Circulation, Business Week, 330 W. 42nd Street, New York 18, N. Y.

Subscription rates—United States, Mexico, Central and South American countries \$5.00 a year. Canada \$5.50 for a year. Entered as second class matter December 4, 1936 at the Post Office at Albany, N. Y., under the Act of March 3, 1879. Return postage guaranteed. Printed by U. S. A. Copyright 1943 by the McGraw-Hill Publishing Company, Inc.

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Big Tax Boost Unlikely

President Roosevelt's demand for a "really stiff" program of deflationary measures doesn't stand a chance. The contention is growing that the danger of runaway inflation is licked, for the time being at least.

In that happy belief—and with the approaching elections in the back of his head—Congress isn't going to do any fancy carving job on 40,000,000 rebellious taxpayers.

In spite of staggering wartime boosts, taxes so far have contributed almost nothing to the fight against inflation.

Supply Holds Its Own

On paper the excess of individual purchasing power over available goods already is enough to blow the lid off. The main reason it hasn't is simply that the supply of staple goods has been big enough at most times and in most places to keep people pacified and forestall any general buyers' panic.

This year's promise of a bumper food and fiber crop wipes out the worst threat of a shortage in basic necessities. For the Administration as well as for Congress, this is pure good luck.

Horns of the Tax Dilemma

Since the start of the war, it has been obvious that taxes couldn't be boosted fast enough to mop up extra purchasing power. The greatest part of the increase in national income has gone to the lower brackets where taxes are light-

Low income earners won't stand for a tax that grabs back everything they have gained. And the old game of piling the extra load on upper and middle brackets just about reached its limit in the last revenue bill.

This was what Rep. Robert L. Doughton, chairman of the Ways & Means Committee, and Sen. Walter F. George, chairman of the Finance Committee, had in mind when they said that \$5,000,000,000 or \$6,000,000,000 more would be all the new tax bill could scrape up. President Roosevelt has been demanding at least twice that but he is no shrewd a judge of the country's temper to think even he could get away with it in an election year.

More Bickering Ahead

Regardless of the way it's talking, the Administration doesn't hope to get anything like \$12,000,000,000 in new

taxes. Some officials are even wondering if they should ask for new levies at all. An extra \$5,000,000,000 or so would rile taxpayers and would be only a drop in the bucket as far as inflation goes.

Roosevelt, however, wants Congress to take the responsibility for refusing to lay on the additional tax burden. Responsibility is just what Congress also wants to dodge, and so the odds are that the next tax bill will bring the same bickering, stalling, and general confusion as the last one.

Rep. Doughton has been wrong before (he predicted that the Ruml plan would stay dead when it failed to pass the House the first time), but he spoke as a prophet this week: "I can't see anything ahead but trouble and a battle all the way."

New Argentine Deal

Cancellation of all but a few high-priority export licenses to Argentina is aimed at stopping leakages to Axis-linked firms. Rescreening will validate some of the canceled licenses later. The move is in no way related to the recent Argentine "take-over" of American and British auto and tire factories. The license cutback was in the wind a month ago (BW—Jun. 26 '43, p8).

At the same time, the State Dept. is not at all enthusiastic about Argentina's new military government or its war attitude and may be expected to deal her out of any trade breaks arising from improvement in the ship situation. Britain, although less inclined to jeopardize her already war-weakened position in

It's a War Job or Fight

Effects of the fathers' draft—now set for Oct. 1—will be out of all proportion to the number who actually wind up in uniform. Barring a military disaster, comparatively few fathers will be inducted, but the open season on Class 3-A gives the War Manpower Commission a new hold on all 6,559,000 registrants.

Until now, pre-Pearl Harbor fathers could thumb their noses at WMC's list of essential occupations unless they were in one of the handful specifically designated as nondeferable. Start of reclassification means they have to get into essential work and stay there.

● **WMC's Option**—The arithmetic of the draft brought the fathers' call at a time when manpower authorities found it particularly convenient. Selective Service probably could have squeaked through to the end of the year by authorizing a wholesale shakeup of occupational deferments. Instead, with war production lagging and labor supply getting tighter by the week, WMC decided to dig into the 3-A's.

As things look now, about 300,000 fathers—5% of the total—can expect induction during the last three months of this year. The armed forces need 625,000 men to meet their quotas through December. They will get about 150,000 from youngsters just turned 18 and another 175,000 from reclassified 4-F's and expiring occupational defer-

ments. Rejections and deferments in the fathers' class will run around 50%, which means that something like 600,000 3-A's will have to be reclassified by the end of the year.

● **About 200,000 Fathers**—In the first six months of 1944, the services will want about 500,000 men, not counting replacements. (The Army originally planned to hit full strength by January, but it is running behind its timetable while the Navy is getting ahead.) About 300,000 of these will be 18-year olds. Most of the other 200,000 inductees will probably be fathers.

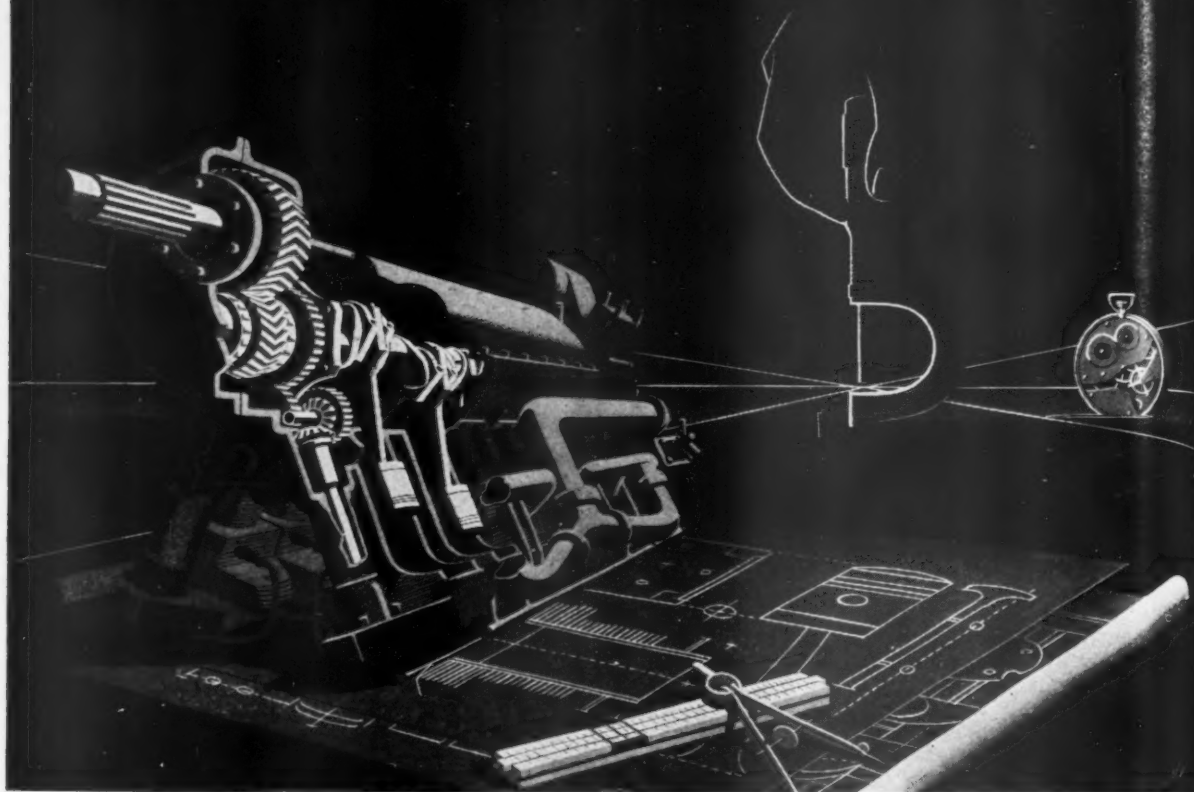
Actual rate of induction will depend on three factors:

- (1) Casualties and discharges and the Army's policy on replacement.
- (2) Local board policy on occupational deferments. Incidentally, fathers will find it easy to get deferments if they can make any sort of case for themselves.
- (3) Rate of enlistments in the women's services.

WMC can count on a howl as soon as Congress gets back next month. There isn't much chance that congressmen will overrule the order, but they may very well vote some qualifications on it.

● **A Possible Change**—A hastily passed law putting the fathers' draft on a nation-wide rather than local basis is better than a possibility. This would forbid local boards to call up fathers when childless men were available in other states.

THE TOUCH OF TOMORROW IN THE PLANES OF TODAY



How Precise is Precision?

Maybe *your* yardstick is a fine watch. *Ours* is a Ranger 12-cylinder in-line, air-cooled engine. See the comparisons between the two listed below.

A whole battery of fine laboratory instruments, plus the genius of craftsmanship, are responsible for the Ranger's outstanding precision performance.

There's the spectroscope, for example—so sensitive it can spot a particle of metal as minute as seven parts in a hundred thousand. Fairchild uses it to explore and to control the metals in Ranger engines.

A quarter million volt X-Ray is another Fairchild key to secrets that are hidden beneath 4 inches of solid steel. It tells our engineers which metals can "take it."

Under a metallurgical microscope our technicians can read the history of any metal . . . tell how it was processed during manufacture.

With electrical instruments they can detect a flaw one ten-thousandth of an inch in depth that could become a bottomless pit of danger.

A beam of black light is played over machined surfaces to expose the structural "criminals" that may lurk within.

These and hundreds of other present-day miracles are routine matters for Ranger engineers and scientists. Result—the Ranger Engine...combination of precision and power . . . another Fairchild "touch of tomorrow in the planes of today."

A QUALITY WATCH

PARTS—about 350.

PRECISION measurements—wheel pivot held to a tolerance of $1/2$ of 1 per cent of its diameter.

SPEED of moving parts—balance wheel oscillates 5 times per second.

A RANGER ENGINE

PARTS—exactly 4,127.

PRECISION measurements—impeller shaft held to a tolerance of $1/10$ of 1 per cent of its diameter.

SPEED of moving parts—fastest part revolves 520 times per second.

BUY U.S. WAR BONDS AND STAMPS



Ranger Aircraft Engines Division, Farmingdale, L. I.

ENGINE AND AIRPLANE CORPORATION
30 ROCKEFELLER PLAZA, NEW YORK

Fairchild Aircraft Division, Hagerstown, Md. . . . Burlington, N. C.

Duramold Division, New York, N. Y.

Argentina, is cooperating—threatening in South African trade with Argentina, for instance.

Killed Meat

The Senate Small Business Committee's probe into chain store purchases of small meat packing plants is rapidly moving into deep water. That's why the public hearing, scheduled for Aug. 15, has been postponed.

For one thing, independent retailers aren't waiting for the committee to defend their interests; they're buying plants themselves. In Cincinnati this week a retail meat dealers' co-op closed a deal for a plant somewhat smaller than the one it originally dickered for (BW—Jul. 31'43, p100).

Meanwhile, small packers are reversing the procedure. They are going into the retail business, either buying stores outright or forming partnerships with groups of retailers. The big packers are

kept out of retailing by the old packers' consent decree, but there are no such restrictions on the small fellows.

Trade talk is that chain store purchase of packing plants is aimed as much at postwar expansion as at insuring a meat supply for the duration.

In some cases Dept. of Agriculture regulations have hamstrung chains and independents on getting any meat out of their own plants. New owners are technically required to supply the old management's customers, follow the same service practices.

Management Man for a Management Job

Worried over lagging war production and pretty well convinced that manpower troubles are the main root of it, WPB hacked away at the problem from every possible angle this week.

Of special interest to business in this conviction was the elevation of the Management Consultant Branch of WPB to division status. Henceforth, it will be on a par with the Labor Production Division under Joseph D. Keenan (of A.F.L.) and the Manpower Requirements Division under Clinton S. Golden (of C.I.O.). It will shortly have a regional staff.

• **To Work on Incentives**—John W. Nickerson, who headed the Management Consultant Branch, stays on as the division's director. A practical Yankee manufacturer (Cheney Bros. silk mills), Nickerson came to WPB early in 1942 to organize a panel of management consultants for Sidney Hillman, the labor leader who was then a top man in the war organization.

Nickerson is no lover of organized labor, but he has worked well with Keenan and Golden, WPB's two labor vice-chairmen. Probably the most important part of his job will be cooperating with Keenan's office on incentive wage plans. WPB still sees these as one promising solution to manpower troubles, is giving them a big play.

When Keenan's office sends a man out to clear up a labor trouble spot, one of Nickerson's staff will go along to work on management. This harks back to the old days of the National Defense Advisory Commission's Labor Conciliation Service on which Edwin D. Bransome, Vanadium Corp. president, represented management (BW—Dec. 21'40, p22).

• **Worried about Quits**—Quit-rate statistics have furnished one diag-



Trouble-Shooter

nosis of manpower ills—new workers. Over half of the recent quits have involved workers with less than four months' experience. Some of them quit for the higher pay their newly acquired training could command elsewhere. But many, mostly women, got out because they weren't tough enough for an assembly line job or because they had found they couldn't leave family responsibilities after all. The result, in many places, has been a net loss of workers.

Most troublesome industries in this respect have been aircraft, shipbuilding, and aluminum. Aircraft manufacturers are turning to such solutions as actually taking sub-assembly to the workers (where transportation is the problem) or accepting workers for short shifts and two or three days a week (where house-keeping keeps women off the job).

Present thinking in WPB is that problems like these will have to be ironed out on an area-by-area, plant-by-plant basis. That's where Nickerson's job comes in.

Farm-Food "Cooperation"

Although not too sure that Congress will approve, the War Food Administration will, nevertheless, propose a 1944 crop control program involving government contracts with growers. The idea is that the government will sign individual farmers for so-and-so many acres of wheat, cotton, soybeans, etc., much as contracts are now signed for copper or magnesium.

Farmers who fall in line would be promised (1) adequate machinery, fertilizer, labor, and gasoline, and (2) adequate prices, including special incentives for switching, say, from cotton to soybeans.

For a Tighter Grip

Whether or not the program materializes, it is indicative of how far WFA and OPA are willing and prepared to go to hold down food prices at the consumer level while simultaneously keeping up income at the farm level (page 16). The trick is, of course, to get as much government control over foods as possible. Currently, the best the government can do is engage in buy-sell operations.

Production control would insure a still firmer grip on the market, but precisely for that reason Congress will be consulted.

Too Much Inspection

The hullabaloo that the Truman Committee and the Dept. of Justice have been making about faulty materials and lax inspection is an important cause of lagging war production.

Manufacturers report that government inspectors, afraid for their own necks, are tightening up inspection to a degree that is seriously jamming the works. One airplane engine plant shows a shocking falling off in output which it attributes to inspectors' jitters.

Numerous manufacturers say produc-

NO STAR ON HIS SHOULDER

... but he's a
home-front
"Brigadier"



No star on his shoulder, no. But today's Safety Director is charged with the safety of innumerable workers... thousands of them doing hazardous jobs... many of them virtually irreplaceable. The Safety Director does bear a heavy responsibility. His importance is unquestioned.

Working with him is Willson, engineer and manufacturer of more than 300 styles in eye protective and respiratory equipment.

For many of the Safety Director's most critical problems, Willson has the answers... and these are constantly being relayed through Willson distributors in 51 cities.



The Safety Effort
is a vital part
of the War Effort.

GOOGLES • RESPIRATORS • GAS MASKS • HELMETS

WILLSON
DOUBLE
PRODUCTS INCORPORATED
READING, PA. U.S.A.

WASHINGTON BULLETIN (Continued)

tion in their plants never again will reach its former levels if inspectors continue to insist upon the degree of perfection they have been demanding recently.

Sturges to Sicily

As a result of the Jones-Wallace feud (BW-Jul.24'43,p5), the State Dept. is now definitely top dog in the foreign economic field, and the first cue to what that means is found in the selection of Dr. Wesley Sturges, former field man of the Board of Economic Warfare, to head economic aid in Sicily as an employee of State's Office of Foreign Economic Coordination.

For several months, Sturges headed the development and procurement section of the North Africa Economic Board, a BEW baby.

In Sicily, in striped trousers, Sturges will do the same job and oversee the general operation of the civilian economy.

Dr. Sturges last appeared in the public eye as director of the Distilled Spirits Institute—a fact not now generally listed in his press notices—but he quit the job (BW-Jul.20'40,p46) when the distillers failed to go along with his reform campaign.

"Currency" Instead of Stamps?

"Ration currency"—glass or fiber tokens to take the place of small denomination ration stamps—is by no means a dead duck. OPA's interest has been revived and the idea is getting "very serious consideration." Even if ration currency were approved within the next few weeks, however, it would be four to five months before tokens reached sales counters.

Stamps would still be issued in a single denomination (probably 16 points); all tokens, which shoppers would get in change for stamps, would have one point value. Stamps would have expiration dates, as at present, but tokens would not.

The argument for tokens is based purely on mechanical convenience. Nobody can figure out whether the fact that tokens would be valid anytime would result in the purchase of more rationed food or less.

Capital Gains (and Losses)

Because of the critical manpower situation in the Northwest, plans have been dropped for installation of No. 7 generator at Grand Coulee to produce



DEPUTY IN DEMAND

James F. Brownlee, War Food Administration's transportation head and president of Frankfort Distilleries has been tapped by Prentiss Brown as his new deputy price administrator to replace Don Wallace who left the business background demanded by Congress. Brownlee joined General Foods around 1928, became vice president before he left in 1935 to join Frankfort and gain the reputation of being the distilling industry's highest paid executive. His government connections go back to WPB's early days when he became assistant director of its Materials Division—serving until illness forced him out. The spring Chester Davis placed him in the War Food Administration; now Brown wants his services in OPA.

an additional 108,000 kw. for delivery early in 1945 (BW-Jul.24'43,p17).

Office of Defense Transportation has loosened up restrictions on deliveries in the eastern gas shortage area. Henceforth, stores may deliver all gift purchases and mail and phone orders, regardless of size, ostensibly so war workers won't have to take time off to shop.

A concern which advertises that you can grow a year-round Victory garden without soil has affronted the credibility of the Federal Trade Commission.

Business Week
Washington Bureau

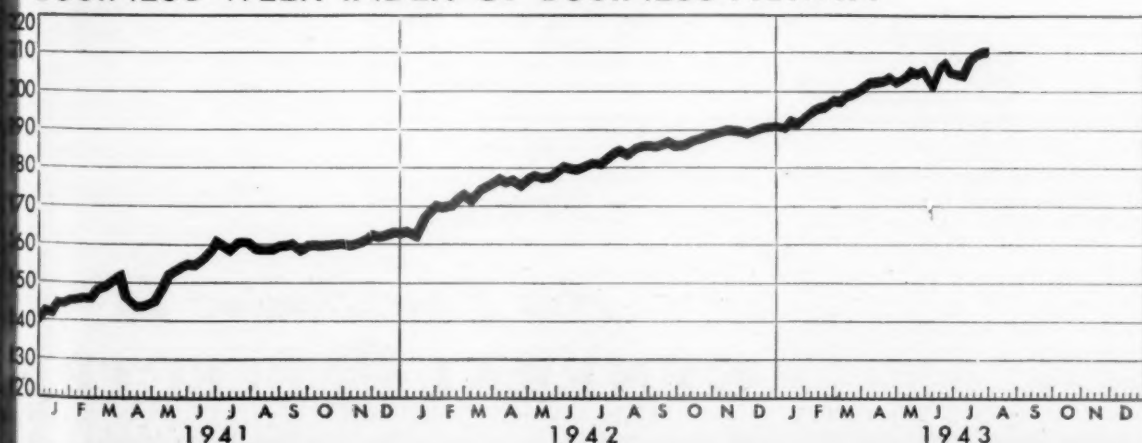
FIGURES OF THE WEEK


	§ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
INDEX (see chart below)	*211.4	211.2	205.2	194.3	185.8
DUCTION					
Ingot Operations (% of capacity)	98.3	98.0	96.6	98.3	95.8
Production of Automobiles and Trucks	19,900	20,130	18,645	18,620	18,260
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$10,068	\$10,267	\$8,701	\$10,196	\$31,086
Electric Power Output (million kilowatt-hours)	4,227	4,196	4,111	3,977	3,649
Petroleum Oil (daily average, 1,000 bbls.)	4,133	4,119	4,008	3,826	3,383
Bituminous Coal (daily average, 1,000 tons)	2,017	+1,967	768	1,867	1,843
Other					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	81	79	81	70	80
Other Carloadings (daily average, 1,000 cars)	67	67	45	47	63
Money in Circulation (Wednesday series, millions)	\$17,799	\$17,706	\$17,420	\$15,438	\$12,647
Department Store Sales (change from same week of preceding year)	+19%	+20%	+19%	+1%	+5%
Business Failures (Dun & Bradstreet, number)	48	50	66	138	168
INDEX (Average for the week)					
Commodity Index (Moody's, Dec. 31, 1931 = 100)	244.1	244.1	245.2	244.8	230.2
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	160.7	160.5	160.0	157.4	154.0
Agricultural Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	209.9	209.5	210.3	201.8	180.7
Processed Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Processed Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.39	\$1.40	\$1.40	\$1.37	\$1.11
Corn (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	20.60¢	20.68¢	21.07¢	20.56¢	18.68¢
Wool Tops (New York, lb.)	\$1.370	\$1.370	\$1.370	\$1.230	\$1.243
Wool (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
Stocks, Price Index (Standard & Poor's Corp.)	93.4	97.4	98.2	83.0	67.8
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	3.81%	3.80%	3.85%	4.10%	4.29%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.69%	2.69%	2.71%	2.77%	2.82%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.28%	2.28%	2.27%	2.32%	2.34%
Loan Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	1-1/4%	1-1/4%	1-1/4%	1-1/4%	1-1/4%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	33,839	33,386	32,289	30,052	26,670
Time Deposits and Investments, reporting member banks	46,482	46,612	45,843	41,591	33,512
Commercial and Agricultural Loans, reporting member banks	5,628	5,618	5,542	6,149	6,735
Real Estate Loans, reporting member banks	1,371	1,342	1,348	926	976
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	34,072	34,207	33,295	28,567	19,387
Other Securities Held, reporting member banks	2,931	2,956	3,063	3,286	3,429
Reserves, all member banks (Wednesday series)	1,020	1,190	1,210	2,094	2,196
Total Federal Reserve Credit Outstanding (Wednesday series)	8,418	8,033	7,576	5,992	3,237

† Preliminary, week ended July 31st.
 ‡ Fixed by government.

† Revised.
 § Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





speedometer not needed . . .

One of the most important factors in accuracy of gun-fire today is the velocity at which a shell travels.

Formerly, variations in the structure and dryness of the powder made great differences in shell velocity . . . and hence, made accurate gun-fire correspondingly difficult.

Today—thanks to technical advances in powder-making *plus air conditioning*—there is so little variation in powder that gunners can know *exactly* what shell velocity will be. Result—a more accurate gun-fire that has already contributed to important American victories.

Air conditioning keeps powder at the correct temperature and humidity levels, not only in the making of the powder, but

also in storage places ashore and in powder magazines on shipboard.

To meet exacting requirements like this, General Electric engineers have developed *air conditioning* and *industrial refrigeration* equipment that is more efficient, more compact, more flexible.

Now devoted to war, these improvements will be turned to innumerable peacetime uses when hostilities cease. Now for war . . . later for peace . . . turn to General Electric for efficient, compact air conditioning and industrial refrigeration.

★ BUY WAR BONDS ★

General Electric Company, Air Conditioning and Commercial Refrigeration Divisions, Section 439, Bloomfield, New Jersey.

Air Conditioning by
GENERAL  ELECTRIC

Listen to the General Electric radio programs: "THE HOUR OF CHARM", Sundays, 10 P.M., E W T, on N B C . . . "THE WORLD TODAY" News, Weekdays, 6:45 P.M., E W T, on C B S

THE OUTLOOK

Now in Stabilizing Phase

War programs are shaking down as they get close to their ceilings, and basic economic trends are pretty well set. But critical changes will continue to keep management on its toes.

Business news these days chiefly concerns details; for the most part, basic trends have been established. At this point the war economy may be said to have "arrived," in that an over-all tendency towards stabilization can be noted on every hand. The fundamental element in which business must operate is gradually becoming fixed, awaiting the critical change in the war that will set new forces in motion.

Manpower Limits

For manpower—resource No. 1—it is clear that the pace of mobilization has slowed. Both the total labor force of the armed forces are approaching foreseen limits; the decline in employment is beginning to level off. Manpower curves won't flatten into straight lines for another year.

Chiefly because of manpower, the deceleration can be observed in action, as regards both the rise in war output and in munitions, and the tapering in civilian goods. An additional reason is that materials supplies are at capacity, and the bulk of excess stocks, both at the distributive and the manufacturing levels, has been about drained away.

This implies that, in turn, the demand for transport, fuel, power, and other facilities closely related to production is approaching top levels, and the physical volume of retail distribution will reflect the slowing decline in civilian output and stockpiles.

On the price, wage, and profit fronts, the economic trends depend on particularly sensitive controls—less certainty of results. Nonetheless, the emergence, through all the recent struggles, of an administrative hand parallels the gradual stabilization on the physical-manpower-production side.

Management Layoff

In retrospective comparison, the period of war mobilization was marked by a skelter change. As change gives way to relative constancy, immediate management problems are eased.

But this is far from saying that the tensions of everyday business have become so mechanical as to permit the executive forty winks at the office. For, while the over-all economic environment may have begun to settle,

specific businesses still must contend with atmospheric disturbances. These are not only of a random nature; some that flow inexorably from the conditions of a war economy cannot always be foreseen sufficiently early to permit sure-fire preparation to meet them.

Adjustment Jobs

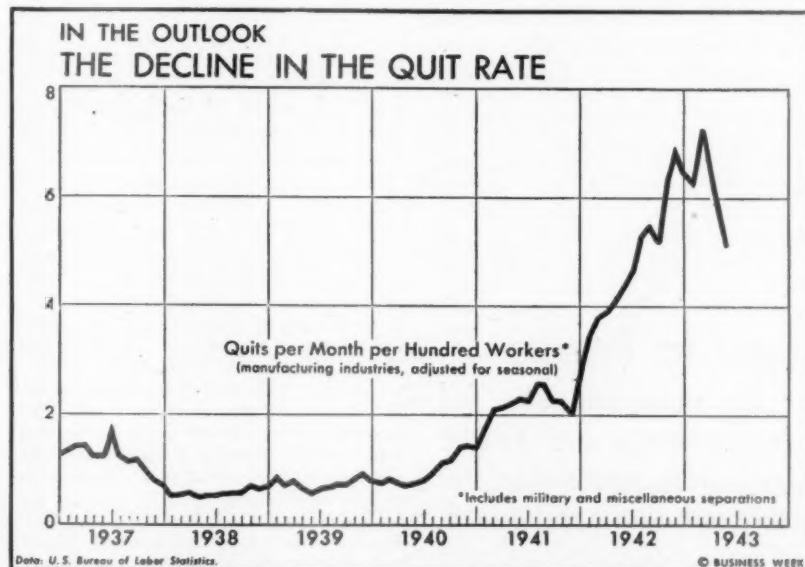
Take manpower. Though over-all curves are straightening, the job of filling key needs in order of importance at the right time and place is getting tougher. The result is a continuing reduction in labor forces for lumber, paper, copper, coal, textiles, and some other industries and, therefore, a growing pinch on basic materials supplies. Further, arms plants can't keep up to

labor schedules. Therefore, government controls must tighten: fathers are warned to get into essential work, more stringent job-freezes are prepared, a national service law is again discussed, priorities machinery for supplying labor to industries in critical areas is strengthened, and so on.

Or take war production. We may be closing in on the 100-billion-dollar rate of war effort reaffirmed by Roosevelt for fiscal 1944, but specific programs still change radically. Cargo planes are to be shifted entirely from wood to metal; a big new midwest plant is to make fighters instead of bombers; some ammunition contracts recently cut back are again being enlarged; heavy steel requirements turn up for landing mats; cotton and wool contracts are being canceled or diverted to different agencies, and delivery dates variously deferred or advanced.

Effect on Civilian Supply

These changes, in turn, affect civilian supply. And, food prospects move with the weather—for the better over the past



The three-month drop in the quit rate must not be taken at face value—though the implications are correct. The chief reason for the drop is the steady decline in percentage of military plus miscellaneous separations—from 2.03 per hundred workers last October to 0.73 in May. That was due to a reduction in draft quotas; to increased inductions of 18-year-olds, most of whom were in school or in nonfactory jobs; and to the fact that,

while manufacturing employment has been rising, the proportion of draft-eligible men has been declining. Voluntary quits increased—until May, when job-shifting dropped sharply, which may be proof of the efficacy of recent government rulings directed toward job stabilization. In the net, the figures show that plant managers are having to replace fewer workers per month—even as replacements become more and more difficult to find.

month, incidentally. Improved ship supply overturns coffee, sugar, and similar commodity situations.

Steel especially illustrates the sensitivity of business operations to even slight changes in the outlook. Because of bad weather on the Great Lakes, WPB estimates of iron ore shipments down the Lakes which were first reduced from 95 million to 91 million tons have again been chopped to 86.5 million. Since steel capacity expansion had been delayed, the first cut did not upset steel-making plans. But the new drop in estimates—which reflects a reluctance to reduce grain, coal, and other lake shipments in favor of ore—will require additional scrap to feed furnaces, insofar as scrap-ore ratios can be raised. Though scrap supplies have been considerably eased since last year, they, too, have been growing tighter of late. The net result will be a squeeze on raw materials for steel in the winter and spring months—and, probably, reduced ingot output.

Labor and Inflation Shifts

The workings of the Connally-Smith Act (page 15) illustrate in the labor relations field the interjection of new elements into business practice, another one of which is John Lewis' change of heart about reentering the A.F.L.—perhaps motivated by the aid that the Connally-Smith law may render to jurisdictional raiding by his District 50.

On the inflation front, the question of how well the line will be held in the future clearly depends on how much of the Administration's new food-price program will be accepted; and how much of it works (page 16). And perhaps equally important is what kind of a tax bill will develop from the congressional labors which are soon to begin.

Road to Peace

It's strewn with rocks and unemployment, in view of NRPB agency, unless rigid civilian and military controls are maintained.

Business men will be disappointed if they try to find a detailed blueprint for a postwar economy in the new report on demobilization written by the Conference on Postwar Readjustment of Civilian and Military Personnel. However, anyone who sticks with the report through its 106 pages of estimation and exposition will come out with a pretty good idea of the general policy the Administration wants to follow when it starts to shift the country back to a peacetime basis.

• **Semiofficial Status**—Coming just after the President's fireside chat with its postwar overtones, the conference re-



NEW MEN-OF-WAR

Two new warships were added to Uncle Sam's fleet this week—each bearing special distinction. The aircraft carrier Bataan (right), launched by New York Shipbuilding, Camden,



N. J., commemorates the Philippine bloody defense. Meanwhile, the stroyer Cotten (left) was delivered Federal Shipbuilding, Kearny, N. J., just 166 days after keel laying to set a new record and beat the average in category by more than 100 days.

port acquires a sort of semiofficial status even though Roosevelt passed it on to Congress without detailed indorsement. As an offshoot of the now defunct National Resources Planning Board, the conference can expect its ideas to take a mauling from insurgent congressmen.

The conference makes a total of 96 more or less specific recommendations, which boil down to four basic principles:

(1) Treat the problem of demobilizing the armed forces and reemploying war workers as a subheading under the larger problem of establishing a high-consumption peacetime economy. Gear the rate of demobilization to the progress of industrial reconversion so that soldiers won't be discharged until there are enough jobs to go round. Plan the termination of war contracts so that some work on Army and Navy orders will continue until civilian production is ready to take up the slack.

(2) Continue controls over prices, wages, etc., until the peacetime economy is running under its own power.

(3) Provide educational and vocational training opportunities for both soldiers and war workers. Set up elaborate advisory services to furnish information on employment and readjustment.

(4) Put the administration of demobilization and rehabilitation in the hands of a single powerful agency.

• **Follows President's Pattern**—Working from these general principles, the conference makes more detailed suggestions for demobilizing the Army. Its program is the same as the one the President cited in his speech—three months' furlough with full pay for soldiers about to be mustered out, unemployment in-

surance for 26 weeks for dismissed soldiers, special educational courses, advisory services, veterans' credit for age and survivors' insurance on the basis of service in the armed forces.

Delayed demobilization of the armed forces probably is the touchiest point in the report. The conference—which includes representatives of the Army, Navy, Veterans Administration, War Manpower Commission, as well as the NRPB—thinks it is unavoidable. According to its guess, conversion to civilian production will take about two years at a minimum. Mustering out millions of men in the first year or so will knock the bottom out of the job market and might throw the whole economy into a depression.

• **Postwar Unemployment Seen**—At the conference figures it, the armed forces will be the only big group "over which the nation could, in the event of a economic crisis, exercise any degree of direct control, and it would be dangerous to surrender the possibility of this control until postwar conditions are known." This assumes implicitly that there will be no labor draft or national service law. Hence, to control the movement of labor, the government will have to retain its grip on men in service.

Even if things go according to plan, the conference expects postwar transition to be a bad time. It estimates that at one time, as many as 8,000,000 may be out of work. Even after five years of adjustment, a figure of 3,000,000 unemployed isn't improbable.

ouble on the Way

Strike vote at Allis-Chalmers illustrates how minority unions will reap advantage from Connally-Smith Act and create violence in war plants under threat of government seizure.

The first strike ballot conducted by the National Labor Relations Board under the terms of the Connally-Smith Labor Disputes Act was taken this week in the Springfield (Ill.) plant of Allis-Chalmers Mfg. Co. The outcome of the voting was less important than the precedent and principles it set on our wartime industrial relations.

Boys' Boys—Adding to the confusion of the situation is the fact that the union which has declared its intention to strike is District 50 of the United Brotherhood of Carpenters and Joiners of America—John L. Lewis organization which, because of its aggressive in coal, was responsible for the enactment of what was intended to be a labor peace law.

It is already apparent that, as far as management is concerned, the new law will make more trouble than it will eliminate. More than 40 unions, A.F.L., C.I.O., and independents, already have filed strike notices under the act. Organized labor sees it as an instrument that can be used to its own advantage. The Allis-Chalmers case illustrates how.

NLRB Vetoes Vote—A.C.'s Springfield plant has a contract with the Farm Equipment & Metal Workers of America, C.I.O., which does not expire until May 15, 1944. Previously NLRB threw out a petition of District 50 for a bargaining representative election. The board maintained that the existing contract between the company and C.I.O. was still in force and barred an election.

On the passage of the Connally-Smith Act, however, District 50, which represents nobody in the plant, gave notice of intent to strike. NLRB Attorney General Francis Biddle issued instructions. Biddle cited the language of the statute—"the representative of the group of employees"—and held it meant that any representative, even if chosen by a minority, could petition for a strike vote.

Contention Rejected—As a result of the opinion, NLRB rejected Allis-Chalmers' contention that strike referendum under the Connally-Smith Act be limited solely to applications filed by representatives certified by NLRB as exclusive agent for all employees. Congress and the courts allow the law ruling to stand, the War Labor Disputes Act will live up to its title. Minority groups in every war production plant in the nation will have license to call for a strike on the basis of any demands they care to present. Further, they will be licensed to agitate for a

majority for 30 days during the so-called "cooling off" period which the law provides. Then, if they fail to carry the vote, nothing is to prevent them from going through the same procedure over and over again. In the event that demands can be presented which will attract a majority to vote for a strike, it can easily end in government seizure of the plant.

Kaiser Case Revival?—Unions which are trying to push their way into plants where other unions are recognized will use the Connally-Smith Act freely. It is practically tailor-made for the C.I.O. in its battle against A.F.L. closed-shop contracts in Henry J. Kaiser's shipyards

—a battle which appeared ended when NLRB threw out a petition for a collective bargaining election (page 76), but which can start all over again under the new law.

The act will also be very useful to unions operating in situations where the threat to ask for a strike vote and evoke government seizure will wring concessions from management as the best alternative to losing its plant.

Teamsters Try Luck—Another significant type of dispute which will keep NLRB busy taking strike polls is exemplified by the second ballot the board has scheduled. This one involves a local A.F.L. teamster union in Newark, N. J., which is dissatisfied with Office of Defense Transportation regulations under which the New Jersey Laundry Owners Assn. must operate. The laundry owners can do nothing about these regulations, and the teamsters hope to get ODT overruled by the White House by voting to strike under Connally-Smith procedures and precipitating govern-

United States of America
National Labor Relations Board

OFFICIAL BALLOT

ALLIS-CHALMERS MANUFACTURING COMPANY
SPRINGFIELD, ILLINOIS PLANTS

MAJOR ISSUE INVOLVED IN THE DISPUTE:

The objection of Allis-Chalmers Workers, District 50, United Brotherhood of Carpenters and Joiners of America, to compliance with the part of the War Relocation Act which requires that the part of the plant which was used for the production of war material be used for the production of war material.

3. If you spoil your ballot, return it to the Board's Agent and obtain a new one.

MARK AN "X" IN THE SQUARE OF YOUR CHOICE

Do you wish to permit an interruption of war production in wartime as a result of this dispute?

<p>YES</p> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto;"></div>	<p>NO</p> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto;"></div>
--	---

THIS IS A SECRET BALLOT AND MUST NOT BE SIGNED

Under the Connally-Smith Act, the National Labor Relations Board must poll employees of an establishment where a strike is threatened on the question of "whether they will permit any such interruption of war production." The ballot it presented to Allis-Chalmers workers (above) indicates how the question will be phrased on ballots for other subsequent strike votes. Of equal importance, however, is NLRB's authority to "include on

the ballot a concise statement of the major issues involved in the dispute and of the efforts being made and the facilities being utilized for the settlement of such dispute." Thus, NLRB has a wide latitude in which it can make a union's proposal more or less attractive to voters. In the A.C. case, its statement of what was involved was so complex that most employees probably didn't bother to read more than the question over the voting squares.

ment seizure of laundries which serve Army camps.

All in all, the Attorney General's Allis-Chalmers ruling, added to the ambiguities of the law, make it certain that Congress' one legislative modification of the New Deal's labor policies will end in a failure that will be costly alike to management and the war production program.

Costs Under Fire

OPA and WFA are agreed on a program to drive down the cost-of-living index by buying crops and selling at a loss.

Admittedly—like England and Canada long before—the U. S. is moving away from price control into index control. With the unions playing the game of Little Steel formula vs. cost-of-living index, the Administration is concentrating all its efforts to move the Bureau of Labor Statistics' thermometer back to last September's levels (where it presumably is safe from union criticism). Now, between OPA and the War Food Administration, a program has been cooked up to give the index one final backward shove.

• **What's Cooking**—Here is roughly what is on the fire:

(1) The government will take advantage of a surprisingly good crop year to buy up a few key commodities whose

production is at record levels. Farmers will be paid better prices than they could legislatively pry out of a sympathetic Congress. Once the government has the crops, it will auction them for whatever the market will bring. This means low bids from middlemen (in view of the big supply), and hence low prices to consumers.

(2) For a few crops whose production is below par the government will boost support prices, and then introduce the commodities into trade channels at cheaper figures. This process will assure the farmer a satisfactory return, prevent middlemen from trying to outbid each other at the farm level, and guarantee lower retail prices.

• **To Drop Index 6%**—Coupled with existing devices—meat and butter rollbacks, reductions in certain food ceilings, and better price-policing—the buy-sell program is designed to effect a 6% cut in the cost-of-living index. The crops on which WFA and OPA have their eye are understandably the subject of a great deal of secrecy. Initially, Congress won't be consulted on the program because government losses—during the first few months, at least—will be small enough to come within existing appropriations.

Rumors of just such an operation have been floating around in Washington for months, but heretofore they were largely guesswork. OPA all along favored rollbacks as against the buy-sell idea. The virtue of a rollback is that the government can pick one or two major items—like meat or coffee or but-

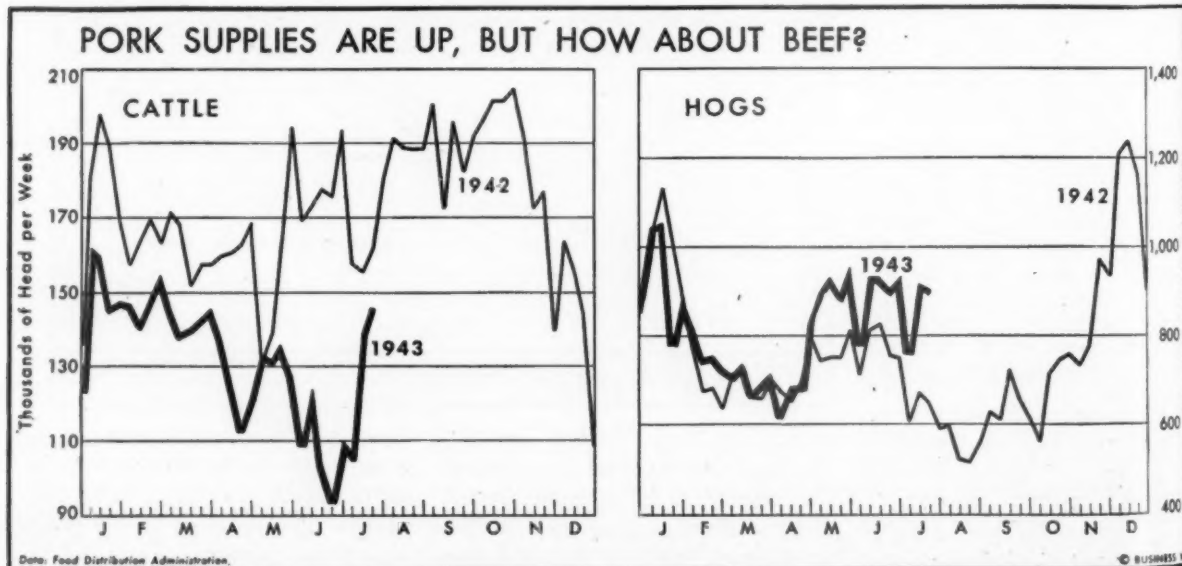
INDEX ROLLBACK

The Administration's plan to throw the Bureau of Labor Statistics' cost-of-living index into reverse so rapidly that 1943 will wind up with a net drop is based on the following estimates:

Latest (June) c. of l. index figure	124.0
Reduction through meat and butter rollbacks	1.3
Reduction through lower ceilings on fish, cabbage, and lettuce	0.7
Reduction through better policing of community ceiling prices	2.3
Reduction through government buying and selling operations	2.5
Total reductions	7.8
C. of l. index at end of year	117.0

When the total reductions have materialized, the index hypothetically will be back to where it was last September. Actually, however, the index may not get that low because new upward pressures will prevent the full drop from being felt. On the other hand, the Administration is confident that next December the index will surely be less than 120—the figure as of Jan. 15, 1943.

ter—and knock the price down so that the whole cost of living slides backward. Since the object is index control, not price control, it makes little difference whether the commodity to be rolled back has too high a price to begin with or not. All that matters



That the meat supply picture is considerably brighter than it was a month ago is indicated by Food Distribution Administration statistics covering federally inspected slaughter in 27 selected cities. Pork production has

been ahead of 1942 since late April; the usual late summer drop has failed to materialize due to feed shortage and the record number of hogs on farms. Cattle slaughter started to rise this year about a month earlier than

normal—also largely due to the shortage—and the influx of grass-fed steers may push the curve above a year ago. In fact, the better than seasonal rise in slaughter has borrowed heat from the winter meat supply.



PACKARD EXPANDS

To keep its Rolls-Royce engine output up to aircraft production, Packard is taking over Aviation Corp.'s \$5,000,000 plant on which construction was halted after it was 90% completed

(BW—May 22 '43, p5). Packard's president, George T. Christopher (left), and R. R. Rees, manager of the new plant at Toledo, Ohio, expect its production to start in a few weeks. It will swing into capacity output during the final quarter of 1943, they say.

that the c. of l. is affected, and that enough subsidy money is available to pay off the middlemen and manufacturers who would otherwise lose in the price knockdown.

• **Postwar Collapse Feared**—But Congress emphatically vetoed the idea of seating down prices at the consumer level, while artificially propping up distributor and producer profits, for fear that the scheme would collapse disastrously after the war. Only the meat and butter rollbacks, which already were an existence, were salvaged by OPA.

The buy-sell program, which supercedes the rollback idea, has two advantages: (1) It is defensible as a straight market operation, granting, of course, that the government is the No. 1 customer; and (2) it operates—with splendid opportunism—so that the farmer gets more money, and the consumer pays much less, for certain crops.

• **Formula's Reprieve**—All in all, it is now not improbable that the Administration will be able to boast that the c. of l. index was lower at the end of 1943 than at the beginning. With that, the Little Steel formula is seemingly granted a reprieve. How long the precious index can be pampered out of its high blood pressure is something else again. But for 1943, at least, major worries over a race between wages and prices are dissipating.

Incentives Pay

Navy's new contract offers immunity from renegotiation and a crack at bonus money as bait for manufacturers.

Latest wrinkle in government procurement policy is a new brand of incentive price contract worked out by the Navy. Like the Army's "forward pricing" and the Maritime Commission's "price-minus" contracts (BW—Mar. 6 '43, p18), it offers contractors a double bait: (1) immunity from renegotiation, and (2) a chance to earn a bonus by shaving costs below original estimates.

• **Percentage of Saving**—Instead of fixing a flat price, the new type of contract sets up a target representing the most probable cost and the profit to be earned on it. In case the contractor runs into tough going, the Navy undertakes to cover him up to a specified amount above the contract price. If he cuts costs below the target figure, he gets a percentage of the saving.

In practice, the deal works out like this: A contractor offers to do a job for \$100 a unit, a price which covers probable cost and makes allowance for contingencies such as increased labor cost.

Instead of this, the Navy offers to pay \$90 cost and \$5 profit. It agrees to protect him up to \$100 if costs run higher than expected, and to give him 10% of the saving if he can cut costs below \$90. Whenever there's enough cost data to make the target price a reasonably accurate forecast of expenses, the Navy will exempt both profit and bonus from renegotiation.

• **Everybody Likes It**—Procurement officers like the new contract because it encourages contractors to beat down costs. Manufacturers like it because it gives them protection similar to a cost-plus-fixed-fee contract and still leaves them a chance to earn a bonus.

Starting cautiously, the Navy has been trying its new system on half a dozen contracts, most of them fairly small. So far, the plan has worked out nicely, and procurement officers want to extend it to bigger jobs. The Navy doesn't intend to make incentive pricing compulsory but is willing to talk it over with any manufacturer who would like to try it.

• **Conn Signed First**—First company to sign one of the new incentive contracts was C. G. Conn, Ltd., Elkhart, Ind., which used to make musical instruments. Last March, Conn converted to the manufacture of airplane instruments. The cost data of another company making the same indicator showed that expenses might run as high as \$272.50 a unit.

The Navy's incentive contract with Conn called for 23,203 instruments, divided into three lots. For the first 5,000 units the Navy agreed to pay \$260 each (\$249 cost plus \$11 profit). Conn was to be protected up to \$280, and if it could cut costs below \$249, it was to get 10% of the difference.

On the next 10,000, the contract price was \$210, protected to \$230, with the company getting 10% of savings below \$196.30. The last 8,203 units carried a fixed price of \$195 with no protection.

• **Both Profited**—After adding up the final score, both the Navy and the company think they came out pretty well. The first 5,000 units (contract price \$260) cost the Navy \$201.82 each. Of this \$128.30 was normal cost, \$56.06 nonrecurring cost, \$11 profit, and \$6.46 bonus. The next 10,000 (contract price \$210) are costing \$152.76 apiece—\$132.70 normal cost, \$13.70 profit, \$6.36 bonus. On the last 8,203, the company voluntarily cut the fixed price from \$195 to \$152.45, and when it got an additional order for 14,000 units, it knocked the price down to \$148.50.

In the end, the Navy is getting its 23,203 indicators at an average cost of \$163.22 a unit instead of \$215.47. Altogether it paid \$3,787,247 instead of \$4,999,585, a saving of \$1,212,338. The company got a bonus of \$95,900 besides its ordinary profit on the contract, giving it an over-all profit of 12.5%.

Ships Level Off

This year's goal is in sight, but 1944's will be tougher. Vast peacetime fleet of ghost ships heaving into view.

Cargo shipbuilding, on which war materials for the United Nations chiefly depend, has reached a temporary plateau, but that happens to be also its goal for the time being. Shipbuilding was not the first production category to have that honor, as some press reports said. Ammunition, tanks, and automotive equipment months ago cleared the high jumps that were set for them.

● **Phenomenal Record**—But no phase of war production surprised the world as shipbuilding has done by its phenomenal speed. In the first half of this year, the industry delivered just under 9,000,000 tons. The June rate of 1,700,000 tons is at a rate that just about guarantees the 1943 quota of 19,000,000 tons.

Next year's objective is 21,000,000 tons, officially. But the Maritime Commission has under its hat a mark of 25,000,000 tons which it thinks could be hit if the program were put under forced draft. There will be more national energy available for diversion to

ships as other categories are cut back, and there will be steel.

● **First Victory Ship**—Nevertheless, the job will be harder than it looks because, in February, the first Victory ship will be delivered, and some time will be lost throughout the year in converting yards to this faster, turbine-powered, peacetime ship (BW—Jul.24'43,p.7). The Victory model will be slower to build, too. Probably two or three hundred of them will be turned out during the year, depending mainly upon the delivery of turbines, reduction gears, turbogenerators, and high-pressure boilers.

Orders for the slow Liberty ships must still be placed, for the war command dares not risk a bottom shortage. It is true that, due to opening of the Mediterranean, one ship, in some cases, has already done the work of five. But this gain was more than offset by the vast new tonnage requirements of the war on Italy. The requirement will be swelled by new attacks in Mare Nostrum or on Germany through Italy. The earliest date hinted thus far for a ship cut-back is late 1944.

● **Future of Liberties?**—The War Shipping Administration and the Maritime Commission are saddened by the certainty that, after perhaps two years of rushing supplies to the hungry and threadbare world, the Liberty ships will be tied up again in long silent quays to await the next war. No one will dare to junk them.

Already there is apprehension that the U. S. will not be able to hold its own in postwar trade against cheap foreign labor competition. This angle was lifted into the news this week by the War Shipping Administration's announcement of transfers of shipping to foreign powers with a current surplus of maritime workers.

● **U. S. to Keep Title**—Adm. Emory S. Land revealed that Norway has chartered 80,000 deadweight tons; Britain has received five ships and will get between 15 and 20 ships a month for ten months; two ships will be chartered to the Greek government, and three to the Netherlands government. While the ships will fly foreign flags and be manned by foreign crews, title will remain American. The Combined Shipping Board will control movements of the vessels leased to Britain, and the United States will direct the use of the other vessels.

The question being raised in shipping circles concerns the eventual disposal of these ships, ostensibly loaned for the duration. If they are not returned, Britain will end the war with a building jump on what her position might otherwise have been. In competition, American flag ships operate at a disadvantage due to labor costs, although the Merchant Marine Act of 1936 does provide construction and operating subsidies for ocean trade.



HEAT-CLOSED CONTAINER

WPB's blessing on production of some 100,000 home dehydrators by ten manufacturers (BW—Jul.10'43,p.84) is heating up a big demand for dried food containers. While glass jars are perfectly suitable, they are needed for liquid packs; hence the swing is to such noncritical items as cardboard boxes. Typical of these is the new container made by Interstate Folding Box Co., Middletown, Ohio. Made specifically for dried foods, it has a moisture-proof inner bag that is easily sealed with a flat iron.

Everyman's Giro

Firestone is the latest of a long list of those who intend to fill the postwar sky with ships of rotary wing type.

Aspiring aircraft builders are preparing to cloud the postwar skies with rotary wing ships. That they fully expect such a boom is shown by recent shifts of men and organizations experienced in helicopter and autogiro design.

● **Firestone's Entry**—Most significant at the moment is last week's announcement of the acquisition by Firestone Aircraft Co. of G & A Aircraft, Inc., of Willow Grove, Pa. G & A is an outgrowth of the Pitcairn Autogiro Co., one of the first to bring rotary wing designs to the U. S. over a decade ago.

When the Pitcairn interests bought licensing rights for the patents of the late Spanish designer, Juan de la Cierva, the autogiro was a crude affair. Subsequent prewar technical developments

TEN TIMES AS FAST

From a half ship a day in January, 1942, to more than five ships a day, every day in the month, in June, 1943—that's the record of U. S. war cargo shipbuilding. The following figures show the number of cargo ships of all kinds—"C" models, Liberties, and others—built in each month of the past year and a half during which the ten-fold increase has been scored.

1942	
January	16
February	26
March	26
April	36
May	57
June	67
July	71
August	68
September	93
October	81
November	84
December	121

1943	
January	106
February	130
March	146
April	157
May	175
June	168
July	*

* Not yet reported but it will be slightly under June.

Pitcairn, G & A, and Kellett Aircraft have included such improvements as elimination of stub wings, power application to the rotor for starting and over-riding for jump takeoff, coaxial propellers, and even roadability.

New Ideas Hatching—Since the war started, G & A has been busy with many confidential projects in the autogiro, helicopter, and glider field. Kellett has been manufacturing military autogiros in addition to its subcontracting work, and the company has developed valuable ideas for postwar rotary wing applications. G & A's and Kellett's developments are under the direction of their respective vice-presidents, Virgil Frazer and Richard Prewitt.

First fruits of the alliance of designer William B. Stout with Consolidated Vultee emphasize roadability. Two fixed-wing designs include (1) a 500-lb., three-place flying automobile having standard automobile tread and tires and a road speed of about 60 m.p.h., and (2) an 800-lb. plane for road or air with 400-mile range and a 40-ft. span. Both have folding wings and four-wheel landing gears.

Helicab's Specifications—The rotary wing Stout ship is called a Helicab, carries two to five persons, and has a composite structure. This two-place model with 125-hp. engine will have a gross weight of 1,700 lb. Rotor disc diameter is 53 ft.; length, 25 ft.; width, 6 ft.; and height, 8 ft.

Reminiscent of the prewar Stout Skycar, these designs reflect the most advanced automobile-type styling and finish. Associated with Stout is E. Burke Wilford, founder of the Pennsylvania Aircraft Syndicate and a pioneer in the development of the Gyroplane which differs from the Cierva machine in that the rotors are feathering—that is, the blades change their pitch—rather than articulating in their connection with the hub.

This development is based on the German Rieseler-Kreiser patents acquired by Wilford many years ago. In the same engineering group is Waldo Waterman whose Studebaker-engine-powered roadable Airmobile was to be distributed through Studebaker sales agencies until the war intervened.

Higgins and Kaiser Cut In—Shipbuilders Andrew J. Higgins and Henry Kaiser are in the rotary wing development business with both feet and are also utilizing some of the outstanding talent in the field. Technical spearhead of Kaiser's helicopter development is Prof. Otto Koppen of Massachusetts Institute of Technology who has created many successful designs in both rotary and fixed wing aircraft.

Koppen is remembered chiefly for the design of the two-control, spinproof plywood airplane developed by General Aircraft of Long Island City, N. Y., one model of which will be built under li-

cense by Grand Rapids Industries, Inc. (BW—Jul.10'43,p19). The Koppen designs will be developed, and probably manufactured, at Kaiser's recently acquired Fleetwings division, Bristol, Pa.

The Higgins hand is seen in the formation of Rota Wings, Inc., a new Philadelphia company with old talent. President is Agnew Larsen who contributed brilliantly to Pitcairn autogiro developments from the earliest days until he resigned to join the Philadelphia firm of Machine & Tool Designing Co. and its associated Pecker, Simpson & Gladbeck, both specialists in the manufacture of intricate rotary wing aircraft parts and subassemblies.

Sikorsky Goes Ahead—Grandfather of American helicopters, the Vought-Sikorsky VS-300, still holds the flight duration record and is undergoing continuous record development (BW—Apr.24'43,p22). This machine, or some modification of it, is to be built under license by Nash Kelvinator.

Shrouded in secrecy is the long-standing Platt-LePage design, although airport snoopers report they have seen it in the air. Haviland Platt formerly was chief engineer for Wilkening Piston Ring Co.; Lawrence LePage is an aeronautical engineer and a former editor of Aviation.

Still another helicopter now being developed in the Philadelphia area is that of Frank N. Piasecki, president of the P-V Engineering Forum, Inc.

Many Other Entrants—Numerous rotary wing designs have been conceived or are in secret construction by aircraft manufacturers. It would not be too far-fetched to assume that something has been done by Lockheed, Curtiss-

Wright, Bell, Allied, Adel, Beech, and Grumman. Each of two large automotive manufacturers has added a man well versed in rotary wing design to its engineering staff; one of the largest electrical manufacturers is self-consciously guarding its interest in the field.

Design problems on rotary wing craft are among the most complex in modern engineering. Consequently, aircraft experts are paying little attention to entrants in the helicopter race who haven't the backing of strong organizations staffed with experienced engineers. The best of talent is none too good for the manufacturer who hopes to succeed in this galaxy of postwar competition.

Egg Scramble

Both chickens and eggs are in big demand, but neither OPA nor WFA can see any way that they could be rationed.

Discount most of the talk that OPA and the War Food Administration will try to unscramble the poultry-egg situation by rationing. As suspected, neither OPA nor WFA has the stomach for the job, although OPA only a few months ago loudly threatened to curb the poultry black market by the coupon system (BW—May1'43,p82). Nobody has yet discovered how anything as decentralized and as seasonal as chicken and egg production can be crowded under a rationing plan that will work.

What Will Be Done—WFA is consoling itself with the statistical knowl-



Long the champion of planes that will double as automobiles, William B. Stout has several designs in the works at Consolidated Vultee. Here he puts finishing touches on a model of his

Aerocar whose wings fold back when it hits the road. Equally interesting to aircraft builders is his vertical lift, rotary wing Helicab designed for two to five passengers.

edge that there will be as many eggs this year as last, while OPA is exhorting consumers not to pay over-the-ceiling prices. That's approximately the whole story on what will be done about eggs.

Neither WFA's glowing statistics nor OPA's blast on prices adequately explains why there should be any scramble in eggs at all. The answer is twofold: (1) The demand is high, due to meat rationing, and (2) there is going to be a bad seasonal slump in supplies.

• **Civilians Cut Two-Thirds**—Ordinarily, the decline in egg production that sets in during the fall is counterbalanced by the use of storage eggs. Last year, civilians got 3,000,000 cases. This year they'll get only 1,000,000 cases (the military procurement agencies get the rest). Thus, although each civilian will get 338 eggs in the coming twelve months (as against 320 in calendar 1942), he had better not count on eating a normal proportion of them in the fall.

As for poultry, in heavy demand because of the shortages of rationed meats, there is hardly any supply problem at all—23% more chicks were hatched this May, for instance, than a year ago. But the problem is how to get the poultry off the farm and into the markets. Farmers are complaining that prices are too low; middlemen squawk that their margins are inadequate; and consumers are belaboring OPA for creating artificial scarcities that result in black markets.

• **Chickens Commandeered**—Faced with what is mainly a price problem, OPA has written and rewritten ceiling regulations until it is blue in the face. As a last resort, the price agency got the Army to stop poultry trucks on the road

and commandeer chickens at ceiling prices.

This move had one salutary effect: It scared the middlemen into some sort of price observance and curbed the practice of overpaying the farmer.

• **Farmers Seek Higher Price**—But the farmers are fighting mad. They claim that the price of baby chicks has jumped from 12¢ to between 14¢ and 18¢ during the past year, while feed prices have advanced from \$3.50 to \$3.90 per 100 lb. Since baby chick prices account for approximately 20% of the final price of poultry, the farmers want the chick price increase translated into a 3½¢-a-pound rise in the money they get from middlemen. That would bring farm prices up from 28½¢ to 32¢. As a compromise, the Senate Small Business Committee has suggested 30¢.

OPA Administrator Prentiss Brown is flatly opposed to increasing prices. But last week he promised two other remedies: (1) a ceiling on baby chicks, and (2) a ceiling on hatching eggs. About feed prices, an equally vexing problem, Brown said nary a word. Since OPA and WFA have agreed to leave the price of corn at \$1.07, while putting a ceiling on hogs at \$14.75, corn will continue to go into hogs. Result: either a decline in chicken production, or black markets in feed, probably the latter.

• **Case for an Optimist**—All of this bodes a zig-zaggy market in poultry. OPA can keep prices somewhere within reason by calling out the Army. It can also bank on the probability that there won't be an absolute shortage because farms are swarming with poultry which some day, somehow, must be sold.

Trucks Pooled

Chicago carriers, with the blessing of ODT and ICC, get together on plan lumping men and equipment for duration.

What may well develop into a nationwide pattern of pooled trucking equipment took effect this week at Chicago. After months of study, the Office of Defense Transportation and the Interstate Commerce Commission last week authorized a program which is unofficially considered the experimental installation that will affect suburban hauling in every other metropolitan area. The plan was proposed first by 33 common carrier haulers who handle about three-quarters of all highway freight within the Chicago suburban area. The estimated saving is 5,000,000 truck miles annually.

• **Efficiency Plus**—Basically, the arrangement eliminates competition for the duration, thus permits using personnel and equipment to theoretical capacity. The participating truckers report to a central dispatching office the loads they have booked and the destinations. The central office thereupon assigns the actual hauling to whichever carrier is most advantageously situated to handle it.

Empty miles are eliminated and approximately full inbound and outbound loads are assured, with all unneeded equipment sitting it out. Interchange of trailer equipment is provided for. Participants expect each tractor to work 24 hours a day, making two round trips between Chicago and peripheral points instead of one trip as at present. Freight bills will be rendered in the name of the originating carrier in order to preserve his goodwill standing with the shipper.

• **Better Service Coming**—Service provided by these haulers in recent months has been admittedly less than perfect. Earl Girard, general manager of the Chicago Suburban Motor Carriers Assn., who promoted the plan, is confident it will enable members to give shippers and receivers at least as frequent and reliable service as they have ever enjoyed.

The central dispatching office began functioning this week with a partial staff. Full-scale operations are scheduled for Aug. 9. First coordination of trucking was between Chicago and the North Chicago-Waukegan industrial district 40 miles north, including the North Shore residential suburbs and two major military establishments that lie along the way.


• **Traffic Analyzed**—To permit most effective use of all equipment according to the existing pattern of traffic, partic-



CABIN CRUISER TAXI

Taxi service on the Chicago River, a kind of cabin cruiser ferry between Chicago's west side railroad stations and the Michigan Avenue bridge, began last week after three months of

wrangling over a city ordinance and delayed Coast Guard approval. The one-way fare is 25¢ for a six-minute ride. Arthur Agra and Clyde Erzinger, the operators, have two 30-passenger boats, running every 15 minutes during morning and evening rush hours.



How life insurance dollars help produce steel for Victory

WHEN PEARL HARBOR CAME, Americans had reason to be proud that our steel industry was ready to beat our roughshares into swords at an astonishing rate.

This year alone, American steel mills will have turned out the steel needed for countless wartime uses. Steel for an estimated 60,000 tanks, 90,000 airplanes, 10,000,000 tons of shipping... steel for guns, shells, and bombs. Steel for great battleships like those that righted the *Oklahoma* and other battleships sunk at Pearl Harbor... steel for the fleets of scrapers and tractors that helped build the Alaskan highway.

Result of courage and faith

These contributions to our war effort didn't just happen by accident. Long before Pearl Harbor, farsighted steel management had the courage and the faith to increase steel capacity far beyond immediate needs.

Management was able to do this because of our natural resources, our native ingenuity, the skill of American manpower... and the millions of dollars invested in industry by people who have faith in America's future.

Among these are the policyholders of America's life insurance companies. Through their companies, 67,000,000 pol-

icyholders have invested about \$1,750,000,000 in the bonds of industrial concerns. Of this amount, more than \$350,000,000 represents investments made by Metropolitan for policyholders.

These investments have been made not only in the steel industry, but in the aluminum, rubber, oil, chemical, and many others. Our war effort requires maximum production in these industries. This production could not have been attained without adequate financial backing. Every life insurance agent who persuades some individual to provide or retain life insurance is the means of making life insurance dollars available for such investments.

Today—war comes first

Today, most of Metropolitan's fund available for investment is going into United States Government Bonds to help finance the war. When the war ends, the dollars that policyholders have set aside to insure the security of their families will again be ready to support and encourage sound and stable peacetime industries.

Steel, for example, is already doing its postwar planning. The present feats of that industry are an indication of what we may expect in steel for better peacetime products, ranging from railway equipment to kitchen cabinets, and from automobiles to bread knives.

Planning for the future

Just as life insurance policyholders contributed to our present industrial capacity, every one who uses life insurance to plan his own future is helping, through payment of premiums, to underwrite industry's postwar planning.

For Metropolitan's 30,000,000 policyholders have faith in the continued and growing greatness of their country.

BUY WAR SAVINGS STAMPS FROM ANY METROPOLITAN AGENT, OR AT ANY METROPOLITAN OFFICE

COPYRIGHT 1943—METROPOLITAN LIFE INSURANCE CO.

75th ANNIVERSARY—1868-1943

Metropolitan Life Insurance Company

(A MUTUAL COMPANY)

Frederick H. Ecker,
CHAIRMAN OF THE BOARD

Leroy A. Lincoln
PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.



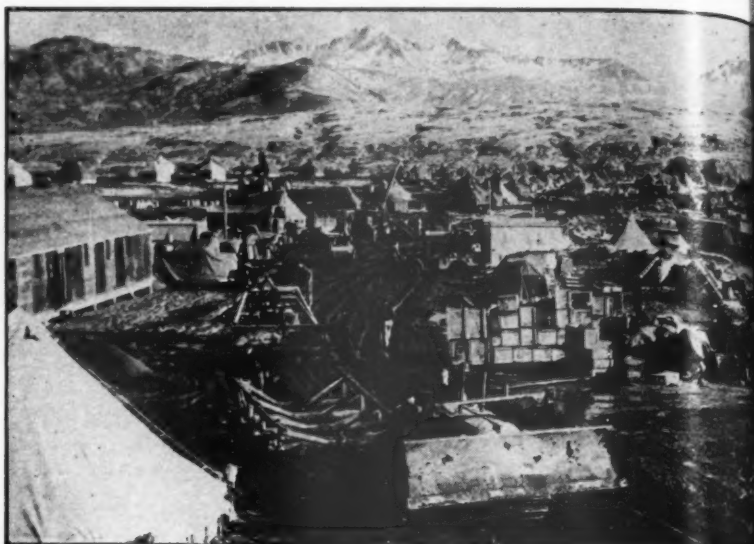
What's more, the "Watch Dog" is a precision lamp starter and a dead lamp stopper that ends blinking and flickering. Precision starting adds greatly to lamp life because it uses a minimum of emission material so vital to long lamp life.

Section G831-102
Appliance and Merchandise Dept.
General Electric Company
Bridgeport, Conn.

Gentlemen: Please send me additional information about your new FS-40 "Watch Dog" Starter.

Name _____
Company _____
Address _____
City _____ State _____

GENERAL ELECTRIC



Many of the men who dug the Japanese out of bleak Attu with bayonets are now wielding picks and shovels and driving bulldozers to build the first permanent base on the lonely outpost. While Seabees and labor

corps rush construction of barracks and warehouses, engineers are gradually completing the main drag which soldiers have dubbed "Tokyo Rd." When it is completed, this tent city will be the springboard for all-out attacks on Japanese installations on nearby Kiska and finally on Tokyo itself.

No change in the financial setup of the participating companies is contemplated. They intend merely to parcel out the available freight on a fair basis and whack up the revenues according to the work performed. The ODT made this arrangement feasible by setting up an official tariff scale effective even for intrastate transfer changes and for the Chicago switching district, where rates had been pretty much catch-as-catch-can.

Major suburban trucking points on the periphery of Chicago are Waukegan, McHenry, Elgin, Aurora, Joliet, Chicago Heights, and Gary. Considerable informal local cooperation is ex-

Platform congestion at trucking terminals has seriously slowed down movement since Pearl Harbor. The suburban carriers are now leasing a terminal building for use in freight interchange among themselves, but even more important for interchange with line-haul carriers. Thus, a truckload from Detroit for a assorted consignees in the Chicago suburban area can be dumped at the new terminal, saving time and expense for all hands.

● **Pooling Repairs**—Next probable step will be consolidated or cooperative maintenance of equipment at a central garage in Chicago. The repair situation is so desperate that practically every one of the 33 outfits is expected to join the pooled maintenance program, with the central shop expected to be ready to begin repair operations before Thanksgiving.



Owing to the character of the information contained in this portfolio, it is not for general distribution. It is available for review, through local Burroughs offices, to industrial and government officials directly concerned with war accounting problems.

Behind each tab is a SAVING IN MANPOWER

Behind each of these tabs there is detailed, comprehensive information describing and illustrating how a specific war accounting job is being handled in the fastest time possible, with the greatest possible saving in manpower.

Altogether, this information represents the combined efforts of many men—officers in the armed services, government officials, war plant executives and Burroughs systems and installation men. Since long before Pearl Harbor, they have been working together in setting up and coordinating government and industrial accounting procedures and practices.

It is gratifying to know that Burroughs' experienced technical staff has been able to contribute so much to so important a task—and that, through this portfolio, so many ideas for saving both time and manpower can be made available to others.

BURROUGHS ADDING MACHINE COMPANY • DETROIT, MICH.

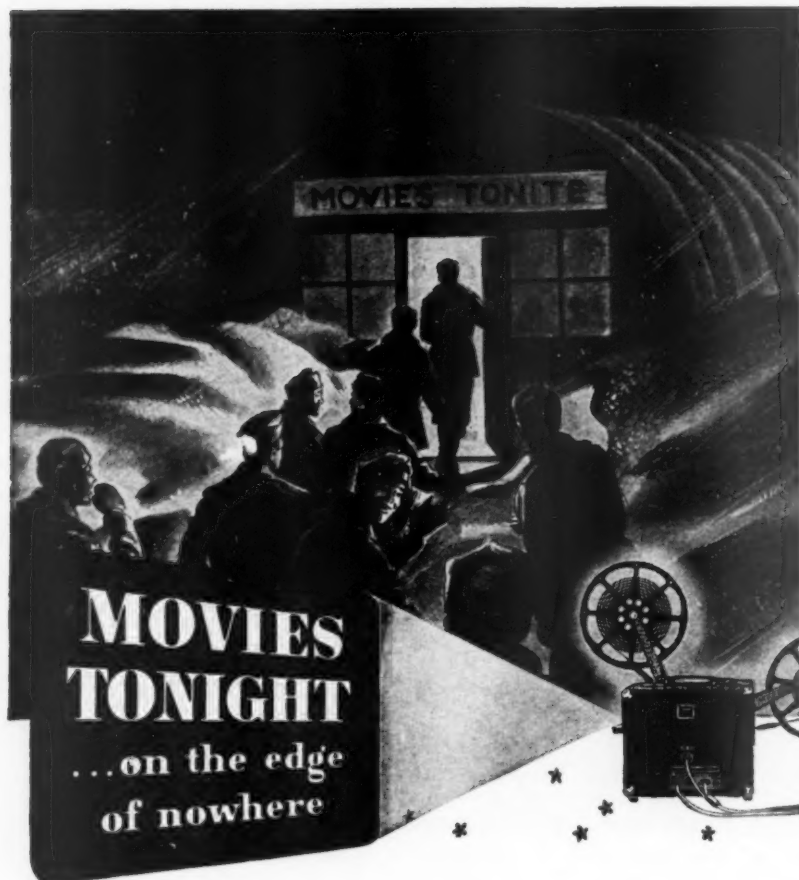


MANUFACTURING FOR WAR

The manufacture of aircraft equipment for the Army Air Forces, and the manufacture of Burroughs figuring and accounting equipment for the Army, Navy, U. S. Government and the nation's many war activities, are the vital tasks assigned to Burroughs in the Victory Program.

Burroughs

Figuring, Accounting and Statistical Machines • Nationwide Maintenance Service
Carbon Paper, Roll Paper, Ribbons and Other Office Machine Supplies



- Grim faces relax . . . cold Aleutian fog is almost forgotten and fighting hearts look home again as a Filmosound Projector flashes on a screen the laughter of the latest Hollywood smash.
- Dog-tired Marines on a Pacific island watch the screen that brings home closer for an hour.
- Serious lads in spotless uniforms learn grim war strategies . . . from movies filmed in battle.
- A chaplain on the Alaska Highway makes Sundays unforgettable with religious films.

In every battle zone, on fighting ships, in camps . . . the armed forces are finding important work for Filmosound Library movies and Filmosound Projectors. This B&H team is giving generously of pleasure and information . . . helping fighters fight . . . helping trainees learn the way to Victory.

On the homefront, too, Filmosound Library's thousands of subjects are

finding eager audiences . . . training first aid classes, doing vital morale work in industry, training workers for intricate new jobs.

And so, on both fronts, Bell & Howell equipment and Filmosound Library movies are "dug in" for the duration . . . doing war work to the exclusion of every lesser job.

* * *

Rent these latest Filmosound Library releases

Hellzapoppin, Paris Calling, Saboteur, Battle for Tunisia, Siege of Stalingrad

Your Bell & Howell dealer can give you full information on obtaining these new films

Filmo

Bell & Howell Company,
Chicago; New York; Hollywood;
Washington, D. C.;
London. Established 1907.



BUY WAR BONDS AND STAMPS

MOTION PICTURE CAMERAS AND PROJECTORS

PRECISION-MADE BY

Bell and Howell

The Heat Is On

But the lights will be dimmed when WPB's power conservation program gets under way. New plan replaces brownout

Having spent years building up industrial, residential, and commercial loads, electric utility salesmen and technicians will start early in September persuade their customers that the current anyone should use is the least with which he can get along. At the time, WPB's broad energy conservation program will get going.

• **Explains to Utilities**—The electric industry's part in this program was outlined to 4,500 utilities last week, bears the unanimous approval not only of the task committee which drew it up but also of the informal industry advisory committee which Office of War Utilities Director J. A. Krug consults periodically.

The electric program (BW-July '43, p. 38) will replace the mandatory brownout proposal which OWU shelved in June as well-nigh unworkable. It anticipated savings of 4,000,000 tons of coal and indeterminate amounts of transportation, manpower, and critical materials for repair and maintenance would be eclipsed if other industries joining WPB's energy-saving campaign (coal, transportation, petroleum, etc.) do a man's job. In domestic heating requirements for the coming winter, WPB hopes to save up to 18,000,000 tons of coal.

• **Standards for the Industry**—In addition to eliminating all daytime advertising, display, and decorative lighting, the standards at which the utility industry will aim include the following:

Indoor and outdoor advertising, promotional, and display sign lighting—Reduce night burning hours as much as possible with the use in no case to exceed two hours between sunset and 10 p.m., local time. Allow signs directing patrons to or identifying public places only when such places are open for business. Reduce lamp wattage of all signs as much as possible.

Decorative and ornamental lighting, including decorative flood lighting—External lighting should be eliminated at all times. Nonessential interior lighting eliminated. Essential interior lighting must be reduced as much as possible.

Show-window lighting which does not provide essential interior lighting—Eliminate such lights during the day. At night, it is to be limited to not more than two hours between sunset and 10 p.m., with wattage reduced as much as possible.

Marquee lighting (other than advertising) and building entrances—Eliminate the lights during the day, reduce them to the minimum necessary for safety at night, and eliminate them except for protective needs when the establishment is closed.

Outdoor business establishments—Use

On lights during daylight, and reduce them as much as possible at night; none to be used except for protection when the establishment is closed.

General interior and showcase illumination—Eliminate all nonessential lighting. Reduce the remainder as much as is consistent with public safety and eyesight conservation.

General conservation by commercial customers—Turn off appliances except when actually needed and eliminate unnecessary

Air conditioning—Adopt more moderate margins of reduction in temperature and relative humidity.

Whiteway street lighting—Reduce wherever possible to lower levels consistent with public safety.

Residential—Eliminate all waste in use of appliances. Use lights and appliances only when necessary.

Industrial—Call to attention of industrial users all possible economies which will not hamper production. Utility engineers should assist in making these economies but must abide by the necessity for maintaining or increasing production.

There Are Exceptions—No effort will be made to curtail necessary military, aviation, police, plant protection, production, or transportation lighting or that essential to the public health and safety, including eyesight conservation.

Outdoor recreational activities are considered essential to wartime morale, the committees found, so the use of electricity for such activities will not be discouraged. Baseball, dog racing, concerts, and the like thus get a green light and all of it they need.

3.2 Beer Again?

Brewers fear they will be forced by reduced malt supply to stretch the brew by sorry process of making it weaker.

Old 3.2 beer, that prerepeal beverage at which many a ruddy nose turned up in scorn, may be coming back on the wings of a wartime shortage of malt. Having stretched malt supplies to the limit of good brewing practice with rice and corn, brewers have concluded that the only way left open for increasing their volume is to lower alcoholic content.

3.2 for the Army—This is tied up with a new government order which directs that all 3.2 beer in the hands of brewers, up to 15% of plant capacity, may not be sold without special authority from the Food Distribution Administration. The War Food Administration, at the same time, transferred administration of malt conservation to the FDA.

Further, each brewer must use 15% of his malt allocation to produce "beer of an alcoholic content of 3.2% or less." These new provisions are for the an-

SLIPPING ACCIDENTS
can be stopped with
SPEEDI-DRI



The oil and grease that accumulate daily around the machines in your shop make a dangerous hazard, threatening men and machines alike. This hazard can be easily, quickly, and economically eliminated by using SPEEDI-DRI—a granular absorbent that provides an immediate non-skid surface and thoroughly soaks up all oil and grease from wood, concrete, or metal floors. For all-round effectiveness in oil-absorption and floor-area-covered, nothing can compare with SPEEDI-DRI.

In addition to its anti-skid and oil-absorption properties, SPEEDI-DRI retards fire, brightens up the plant, improves employee-morale, saves man-power, eliminates the need for scouring floors, stops hot-weather floor-bleeding, helps to prevent shoes from rotting, minimizes the danger of foot-infections, and speeds production because it can be spread by hand and as easily cleaned up without shutting down a single machine for a single minute. There is only one SPEEDI-DRI.

Write for a generous, FREE SAMPLE of SPEEDI-DRI. (If you use water-soluble oils, or if water is also present, ask for SOL-SPEEDI-DRI.)

SPEEDI-DRI
OIL AND GREASE ABSORBENT



SUPPLIERS

East	Midwest and South
REFINERS LUBRICATING CO.	WAVERLY PETROLEUM PRODUCTS CO.
New York 1, N. Y.	Philadelphia 6, Pa.
West Coast	
WAVERLY PETROLEUM PRODUCTS CO.	
Russ Building, San Francisco 4, Calif.	

Prompt Service from Warehouse Stocks in Leading Cities



Pan American Clippers...

Behind the rigid schedules for which Pan American Clippers are famous is an ever-active "ground crew"—skilled engineers and machinists charged with the responsibility of keeping the Clippers in ship-shape condition for their long international jumps.

Buffalo Drills are dependable teammates of these maintenance experts at their Marine Base, La Guardia Field, New York. Here, in the engine shop, versatile Buffalo drilling equipment is employed on a wide variety of operations—performing with typical Buffalo accuracy, speed and ease of control... There's a Buffalo Drill designed *right* and built *right* for practically every metal drilling assignment. Details on the Buffalo line will be sent promptly on request.



BUFFALO FORGE COMPANY
458 BROADWAY BUFFALO, NEW YORK
Branch Engineering Offices in Principal Cities
CANADIAN BLOWER & FORGE COMPANY, LTD., KITCHENER, ONTARIO

"Buffalo"

**DRILLING
MACHINES**



PHOTO COURTESY PAN AMERICAN WORLD AIRWAYS SYSTEM

nounced purpose of providing en- beer for the armed services.

• **But There's More Beer**—Brewers themselves in the peculiar position trying to explain a so-called beer famine against a background of wartime production that has been bumping industry's all-time ceiling.

Perhaps fatter and more numerous envelopes have something to do with demand. Perhaps voluntary trade in compulsory state monopolies' rationing of distilled liquor and higher liquor prices have transformed some what thirst into beer thirst. (The Alcohol Tax Unit reported liquor withdrawals in June were only 7,801,626 gallons, compared with an average monthly rate in the last twelve months of 11,399,600 gallons.)

• **The Production Figures**—But whatever the reason, the fact is that more beer is being consumed in this country than ever before. The preprohibition peak was placed at 66,000,000 barrels in 1914. The United States Breweries Assn. reported 1942 production at 67,701,035 barrels and estimated first half of 1943 production at the annual rate of 69,000,000 barrels.

Most remarkable increase has been since 1941 when production was 50,770,000 barrels. This was about what the industry had been led to expect was a good year's work, after a 1918 low of 50,000,000 and 1933-37 totals ranging from 43,000,000 to 58,000,000 barrels a year.

• **Various Handicaps**—Indications now are that if the brewers could get plenty of malt—produced from barley—plenty of metal for crowns, and plenty of manpower and bottles, they could keep breaking production records. However, the realities of their supply situation may force an actual reduction in the latter half of this year.

Brewers, who used 72,000,000 bu. of malt last year, were allocated 60,000,000 bu. this year against brewer's annual capacity of 97,000,000. Of the 32,000,000-bu. balance, 22,000,000 are earmarked for industrial alcohol to make smokeless powder and other war products, 8,000,000 are for food products, and the other 2,000,000 for export. There seems to be no hope among the brewers that they can increase their malt supply; production is running at full capacity of existing facilities.

• **How Malt Is Divided**—Under the new rules, designated officially as Food Distribution Order No. 66, the WFA continued in effect the restriction of malt usage among brewers who consume 70,000 bu. a year or more, to 93% of base period use, that is, in the corresponding quarter of the year ended Mar. 1, 1943. Smaller breweries are permitted 100% of base period malt consumption, and those using less than 2,000 bushels a year are exempt.

The local transportation problem, of

importance in the brewing industry because the largest sales volume is to be concentrated within truck-distance, may solve itself as a corollary of demand exceeding supply. If customers want beer as urgently as production figures indicate, they'll be willing to come and get it.

Philadelphia Problem—Philadelphia beer distributors have proved this to their own satisfaction. Under Pennsylvania law, delicatessens and taprooms are limited to take-out sales of 72 oz. of beer per customer. This means that one who wants more than six twelve-ounce bottles must buy from a distributor who is not permitted to sell less than the equivalent of 24 bottles of twelve ounces each.

To give the bulk customers the service they demanded, distributors used to deliver until late at night. Many of them, when the Office of Defense Transportation banned deliveries of "luxury" items including alcoholic beverages, were ready to quit business. But to their surprise, their sales held up and in some cases actually improved.

Strictly Not for Pleasure—Customers come in automobiles—shopping, not pleasure driving—with children's express wagons, baby carriages, and other oddly assorted vehicles. When the ODT eased regulations to permit one delivery a week, the Philadelphia distributors voted to stand pat on their original decision: no more retail deliveries while the war lasts. The customers are still coming and getting it.

Doubling Tankers

Shipbuilding firm hires two construction companies for management and consultation to four launchings.

Seeking to double its present rate of tanker launchings, Alabama Dry Dock & Shipbuilding Co. this week employed the services of two large New York construction companies, Turner Construction Co. and Spencer, White & Prentiss, Inc., for consultation and management activities.

No Corporate Change—The collaboration of the two construction companies, whose experience covers such projects as skyscrapers, naval bases, subways, drydocks, and highways, does not involve any new corporate setup. Turner has a contract with Alabama on a fee basis related to the number of ships launched; Spencer, White & Prentiss is associated with Turner in the undertaking. Fred Spencer of Spencer, White & Prentiss has been named vice-president of Alabama Dry Dock in charge of the new ship division.

Spencer's vice-presidency is expected



**CHAIN, too,
is at war**

PEEPS "out of action"
can't win battles. Towing equipment must be tough. Ready to do its job quickly—without fail! ★ ★ International Chain is doing many tough war jobs. ★ ★ International makes chain for every essential need—industrial, marine, farm, or tire. We are prepared to counsel with your engineers on jobs involving unusual chain problems and cordially invite your inquiry.
International Chain and Mfg. Co., York, Penna.

INTERNATIONAL CHAIN



As though always in the spotlight--

Wagner

P R O D U C T S

**reflect sound engineering
and modern manufacturing methods**

Contributing to the inevitable Victory of the Allied forces, Wagner products reflect the exacting standards of quality which have been maintained since the company was founded over five decades ago.

This holds true not only for all types and sizes of power and distribution transformers and constant-current regulators made by Wagner, but also applies to all electric motors, fans, industrial hydraulic braking systems and other products making up the *complete* Wagner line.

If you need transformers, or other products made by Wagner, consult the nearest of Wagner's 29 branch offices, located in principal cities and manned by trained field engineers.

FOR VICTORY—BUY U. S. WAR BONDS and STAMPS

E43-17

Wagner Electric Corporation

ESTABLISHED 1891

6460 Plymouth Avenue, St. Louis, 14, Mo., U. S. A.

ELECTRICAL AND AUTOMOTIVE PRODUCTS

NEW VITAMIN CASE

The Wisconsin Alumni Research Foundation isn't giving up its Steenbock patents relating to the process for producing vitamin D by ultraviolet irradiation even though it was set back in its infringement case against Vitamin Technologists, Inc., of Los Angeles in U. S. Circuit Court (BW—Jul. 17'43, p. 57).

Latest development is an infringement suit brought against Douglas Laboratories, Chicago, involving two of the three patents at issue in the California case. Moreover, the foundation proposes to ask a rehearing in California; final step, if necessary, will be to go to the Supreme Court.

to terminate with the management contract, probably after Alabama launched 78 18,000-ton tankers, in addition to the ten it has completed, a total tanker building program of \$200,000,000. It now has twelve building ways, eight of them built the last year.

● **Built Pacific Bases**—Turner recently has been associated with seven firms in building a dozen naval and air bases in the Pacific. Spear White & Prentiss, specialists in submarine and other heavy construction, during the present war has built three drydocks at Philadelphia and Norfolk and has done harbor construction at the head of the Persian Gulf, plus a highway supply line to Russia.

Tobacco Payoff

Gianninis' alleged plan to liquidate Axton-Fisher in order to realize huge profits on the winds up in bitter fight.

Axton-Fisher Tobacco Co. of Louisville is once again suffering from internal disorders. This time the trouble is not lack of profits but an argument over whether the company should be sold to cash in on enormous profits from huge inventories of leaf tobacco.

● **Attractive Prospect**—This potential profit on the leaf tobacco looks attractive to the Gianninis, far-flung San Francisco bankers who control Axton-Fisher through their big investment company Transamerica (BW—Oct. 10'42, p. 1). First the Gianninis were reported as being with the idea of selling the company to one of its big rivals; now the gossip is that they want to take part in the tobacco and hard-to-get cigar

lumni R
t giving
relating
ing vitam
ation est
k in its
st Vitam
f Los An
Court (B)

is an a
ht agam
Chicago, a
ree patent
ornia cas
ation pro
ing in Ca
essary, w
e Court.

managem
Alabama
inkers, in
ompleted
program
twelve
nem build

mer rece
seven
a naval
ific. Spec
s in sub
tion, da
three se
and Nor
ruction
Gulf, pl
sia.

voff
ed plan
r in or
s on la
it.

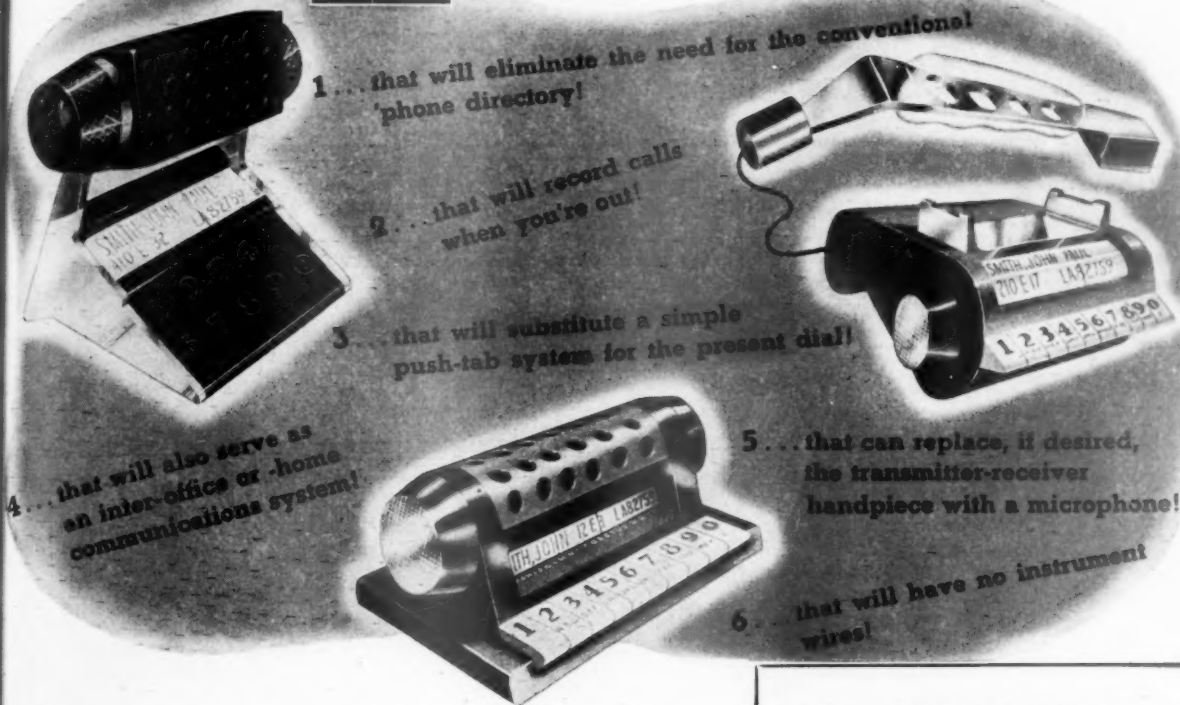
o, of La
from im
the tro
an argum
y should
profits f
pacco.
s pote
ks attr
San F
Axton-F
ht comp
10'42p
ported
g the c
is; now
take pr
get cigat

ust 7, 19

Donald Deskey



looks at a telephone for the future...



HERE, MR. DESKEY, industrial designer, has sketched a few impressions of the likely shape of this mechanical marvel to come. And as he says...

"What will prove of the greatest interest to most people is that the engineering behind these designs is based on principles in actual use today. But whatever the final form of the future telephone's housing... it will probably be molded of the same Durez plastics that are so effectively used in current models. The durability, impact and dielectric strength, light weight and lustrous finish of Durez phenolic molding compounds are unsurpassed for the purpose."

America gave the telephone to the world. And now you see how America's designers and engineers are laying plans to maintain our leadership. Today, among other war applications, Durez plastics are going into communications equipment for the armed services. In the postwar era... they will help the telephone industry evolve a super-system of communications. Durez Plastics & Chemicals, Inc., 548 Walck Road, North Tonawanda, N. Y.

DUREZ

PLASTICS THAT FIT THE JOB

Features of Mr. Deskey's Designs:

1 The conventional telephone directory is eliminated by reproducing it on micro-film and mounting the rolls on a device which allows the user to run through the directory at variable speeds, arriving at the desired number by a manual control. The names are projected through a magnifying lens and appear in an illuminated frame in the base of the telephone. Incorporating this principle, a listing of names equivalent to that of the New York City directory can be contained within the 'phone itself.

2 A trip-signal device for indicating messages received during the absence of the user would be incorporated in a remote terminal cabinet. This trip-signal would stem from the recording-tape device already in existence.

3 The push-tabs simplify the present dial system. The user simultaneously pushes down tabs with identifying letters or number symbols instead of dialing and waiting for the dial to return before dialing the next digit and repeating 6 or 7 times.

4 The telephone could also serve for inter-communications, employing the same principles as used in private systems today.

5 The conventional transmitter-receiver would be replaced by a microphone. However, an ear-phone would be provided in the event the user desired privacy.

6 The hand instrument would be wireless so that telephone can be carried to any point in your room.

rolling machinery, regardless of other real assets and the intangibles such as brand names.

The series of financial operations preparatory to a possible merger or liquidation led the Gianninis into conflict with Axton-Fisher's president, Carl B. Robbins, and with the directors, several of whom are Louisville men. A court action went in favor of Transamerica, and finally Robbins and the rebellious directors quit.

• **New President Named**—Last week Jesse W. Tapp succeeded Robbins as president and new directors were announced. Tapp was formerly Deputy Food Administrator under Chester C. Davis and earlier had been a vice-president of the Gianninis' Bank of America. Robbins, who at one time was an economic counsel to the Bank of America, got Tapp his job with that institution. Robbins moves to New York where he becomes executive vice-president of McCann-Erickson, Inc., the advertising agency which continues to handle campaigns for Axton-Fisher's Fleetwood cigarettes.

Ironically, it was the Robbins management which built up the leaf tobacco stocks whose potentialities threw Axton-Fisher into its latest turmoil. When Mario Giannini bought control of the company through Transamerica and put Robbins in charge, the latter noted that inventories showed prominently among the many weak spots. So, while he laid plans for launching the company's new 15¢ Fleetwood and for revitalizing mentholated Spuds and the 10¢ Twenty Grand, Robbins was feverishly revising the inventories of leaf tobacco.

• **Buying Better Grades**—His examination of the situation told him that a strong rise in the price of leaf tobacco was inevitable. He sold off Axton-Fisher's

inferior holdings as fast as he could and went overboard for better grades. By spring of this year, the company held over \$8,000,000 worth of fine leaf, enough for four and a half years operation.

While Robbins was piling up this accumulation, events were justifying his judgment. Cigarette prices were held stationary by the ceilings that went on last fall. But the ceilings put on leaf tobacco around the first of the year were much more generous and added vastly to the value of the Axton-Fisher holdings. The discrepancy placed the company in a most painful dilemma.

• **Pattern for Losing Money**—Every time it rolled a cigarette, the company's profits shrank because it was putting high-value leaf into items under low ceilings. It is said that Axton-Fisher lost thousands of dollars weekly by processing its leaf instead of selling it.

Thus while enthusiastic claims were made for the sales of Fleetwood and for the ground regained by Spuds, they brought no cheer to the banker overlords. It was obvious that if they could collect their profit on the leaf tobacco, they could make more than by years of cigarette sales. Louisville, which was proud of this locally developed company, was disturbed by rumors that Axton-Fisher was going to be sold down the river. Philip Morris and American Tobacco were mentioned as possible buyers.

• **Dividend Troubles**—When the Gianninis began thinking of selling Axton-Fisher in 1942, the company's capital setup left much to be desired. The preferred stock was far in arrears on its cumulative dividends; so was the class A common. Both these senior issues were entitled to vote against the Gianninis' class B common, due to the fact

that more than four quarterly dividends were past due. Moreover, each share of class A common was entitled to double the amount paid to class B shares in liquidation.

Transamerica set about adding to its holdings, paying \$40 for the convertible class A and \$12 for the class B (both prices well above the market). Transamerica wound up with two-thirds of the 45,465 shares of class A stock outstanding; its combined holding of A and B amounted to 70% of these shares.

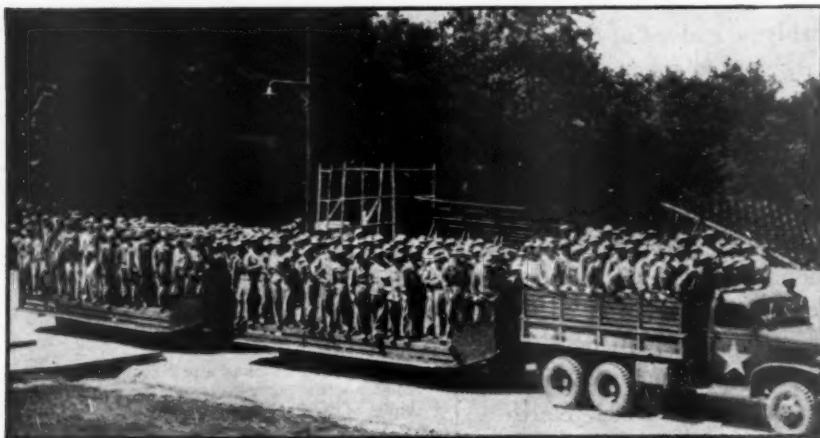
• **Clearing the Arrears**—Next step in the cleanup was paying off the \$26.25 in back dividends on the preferred stock on July 1 (a step costing \$357,000). Then Transamerica converted its class A into class B, share for share. Finally the remaining 15,397 shares of class A which is redeemable with 60 days notice on any dividend date at \$60 share plus accrued dividends, was called (an outlay of a little less than \$1,250,000 at \$60 a share plus \$20.80 in back dividends).

This program was designed to do two things: (1) restore sole voting control to the B stock (the Gianninis), and (2) eliminate the A shares' double take in liquidation as compared to the B. (The preferred is entitled to \$105 a share doesn't participate above that amount in liquidation.)

• **The Fight Starts**—And then the trouble began. Criticism of the Gianninis came from two angles. The Louisville directors didn't want this home industry washed up. The dissident class A holders figured they would get as much as \$140 a share in liquidation (the stock never sold much more than half that high from 1920 through 1942) instead of the \$80.80 that was offered them under the redemption plan.

Thereupon the directors rescinded earlier action calling the class A for full payment July 1; they overrode the Gianninis by declaring that holders of the A stock might accept \$80.80 if they wanted to, but that it wasn't obligatory. A class B stockholder sued to compel cashing in of all the A stock, and Transamerica entered the suit backing up the stockholder. The ruling of the Kentucky Court of Appeals was to the effect that a mandatory call for redemption, once it had been issued by the directors, couldn't be made voluntary. Then Robbins and the anti-Giannini directors submitted their resignations.

• **Liquidation Plan Told**—The Gianninis are not folk who take insubordination lightly. They accepted the resignations of Robbins and his fellow rebels with alacrity. The Gianninis have never admitted that they intended to liquidate Axton-Fisher. But the cat was let out of the bag by one of the Robbins directors—Charles I. Dawson—who declared in court that liquidation had been de-



STANDING ROOM ONLY

At Camp Pickett, Va., the most heavily patronized carrier is the post's swimming hole special—a fresh-air, seatless carrier that runs only between

the barracks area and Birch Lake. A product of Ordnance Motor Repair crews, the flat trailers are made entirely of scrap and will carry 350 men. Soldiers call their ungainly but effective transport "the elephant train."



You will measure distance by your watch in the

Age of Flight

All else is secondary to the fight for life which this country is waging today. In that struggle, the airplane has changed our former concepts of fighting a war. How will it change our thinking in times of peace?

RIGHT NOW the airplane is teaching us to think of distance in terms of hours and minutes instead of miles.

In the Age of Flight, the United States will no longer be thought of as nearly 3000 miles across." It will be "11 hours wide"—or less. Chicago and New York will be three hours apart.

No longer will your country appear to you as a pattern of states extending

off into the far distance. Every section of it will be nearby your home. You will have 130 million close neighbors in the U. S. alone.

Nearly all of the world's population will be within 60 hours' reach. Remote places will become familiar sights. You will make new acquaintances and develop new understanding of people in other parts of the earth.

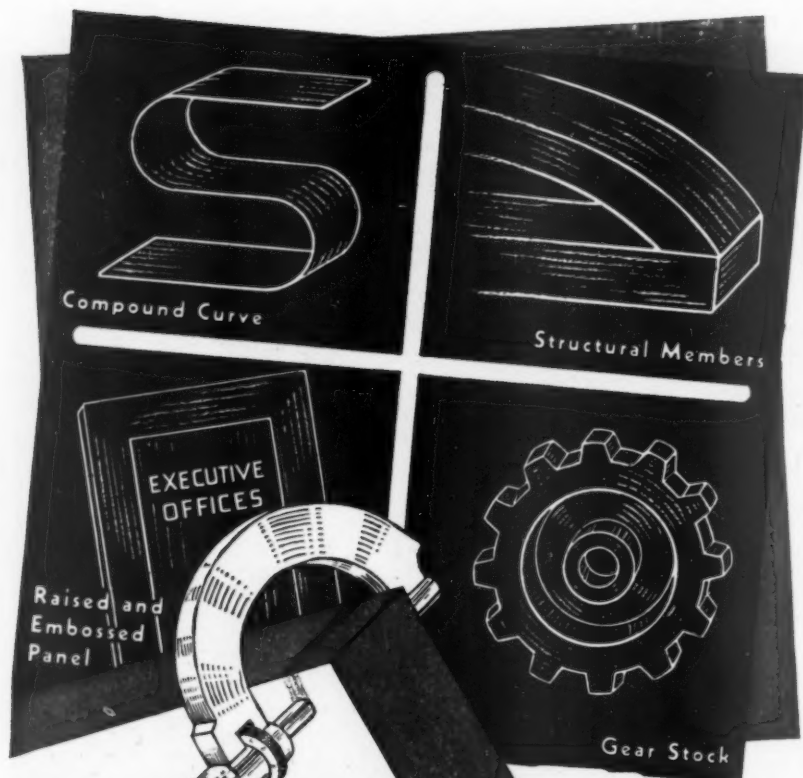
Today, United Mainliners, maintaining regularly scheduled passenger, mail and express flights for soldiers, sailors and civilians, are providing service four times faster than the fastest surface transportation. After Victory the airplane will be six times faster.

And along with this remarkable speed it will offer flexibility, because it moves in a three-dimensional world and can fly anywhere.

When the war is ended and Victory is won, all our years of flying experience will go into a new era of greatly expanded air travel for all . . . the coming Age of Flight.

★ Buy War Bonds and Stamps for Victory ★

UNITED
AIR LINES
THE MAIN LINE AIRWAY



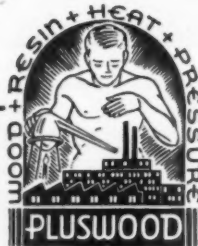
PLUSWOOD

A Wood Alloy

is a *New Engineering Material* that can be made to your order

For the post-war era, Pluswood offers you a brand new technical material, high in aesthetic value, with an exciting weight-strength ratio. A wood alloy, made by a chemico-mechanical process, it possesses structural strengths exceeding those of many metals. A non-conductor with amazing qualities of density and toughness, Pluswood can be made to your pre-determined engineering description. Thick or thin, pliable or rigid, this wood of new wonders is available in thickness ranging from 16 inches to 1/16 of an inch, and in any size up to 7 feet by 18 feet. Highly resistant to swelling, shrinking, corrosion, fire, and thermal shock—Pluswood will retain its dimensional stability so completely that only micrometer measurements indicate changes.

A dependable, responsible organization stands behind Pluswood from forest through saw mills, veneer mills and factory — established by the Lullaby Furniture Corporation, since 1897 America's foremost manufacturer of juvenile furniture. Pluswood maintains a laboratory service that you are urged to use. Write for an engineering bulletin that will give you more complete information.



WOOD Select northern birch or maple — cut from vast northern timber reserves.

+ RESIN Impregnated into veneers by methods and techniques developed by Pluswood research.

+ HEAT 300 K. V. A. high frequency electrostatic generating unit—largest in the country for this purpose—delivering 540,000 B.T.U.'s per hour.

+ PRESSURE Largest and most powerful press in the plywood industry—with total pressing capacity up to 5,000,000 pounds.

PLUSWOOD Incorporated, Oshkosh, Wis.

Associated Companies

NORTHERN HARDWOOD VENEERS, Inc., Butternut, Wisconsin
LULLABY FURNITURE CORPORATION, Stevens Point, Wisconsin
ALGOMA FOREST PRODUCTS, Ltd., Bruce, Ontario, Canada

cided on by the class B stockholders which meant Transamerica and Gianninis.

Despite the court decision that compulsory surrender of class A \$80.80 must stand, it is said that holders have relinquished their shares. Excitement has subsided since it has been reported that prospects who were interested in buying Axton-Fisher have turned cold to the deal because of angles involved. The Gianninis see no allay Louisville's misgivings by the announcement that they are going "steam ahead" with Axton-Fisher. Local interests and people with jobs at the plant would feel better if they were sure as to what direction that full steam ahead is going to take.

On Its Own Legs

Prosthetics industry sees \$100,000,000 year in artificial limbs and braces, but 95% of the casualties will be industrial

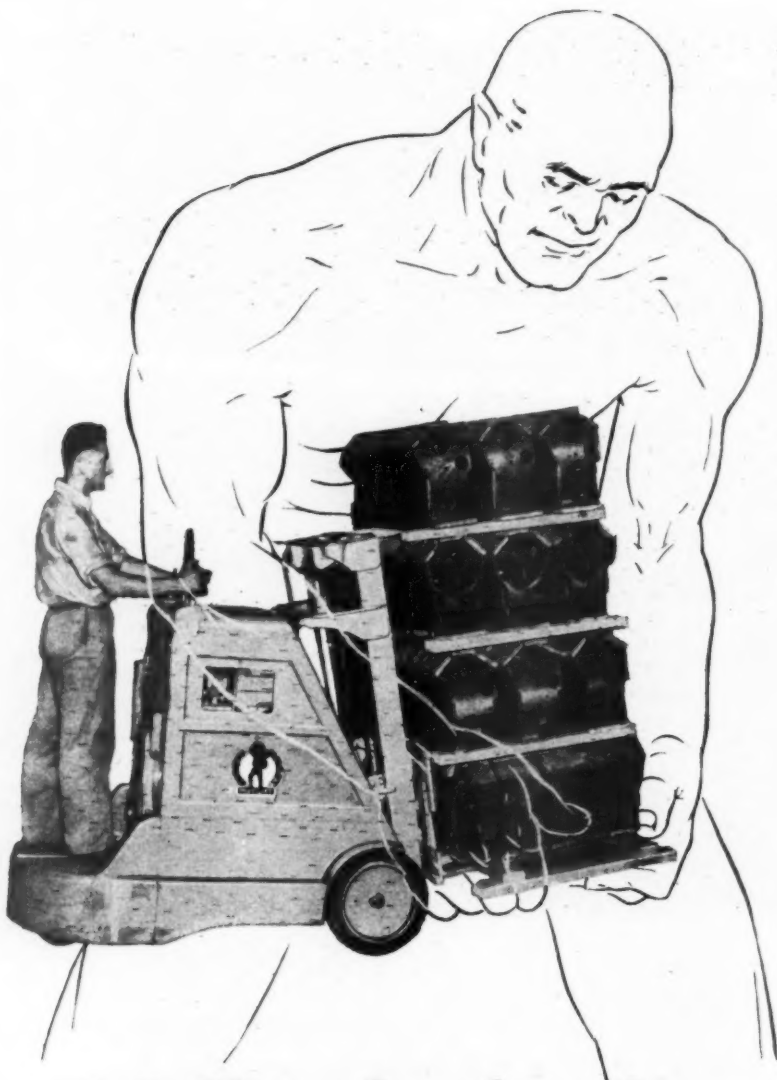
American prosthetists—makers of artificial limbs and braces—will do a \$100,000,000 business this year and will store comfort, efficiency, and happiness to about 50,000 persons.

The evolution of the artificial limb from peg leg to one of rawhide, willow and aluminum has been as remarkable as that of the streamliner from the stagecoach. Men who have lost both legs have down such jobs as firing furnaces and collecting bills by bicycle; one is a chief test pilot of a big airline; a one-armed man is a king of cat-skinners at western construction camps; many men whose names are familiar to you have lost one or more limbs, and employers are coming to prefer retrained amputees for many jobs. One Denver firm making ship plates has 40 and wants more.

• **More Cautious Worker**—Chester Haddan, president of Limb Makers of America, Inc., says an amputee usually is more careful to avoid a second accident, drinks less, is more reliable, is less likely to quit, is absent less, and is a less efficient than one who has not lost a limb.

Prosthetics is one business with virtually no complaint about government treatment. Its employees have deferred status—and 5,000 of the 8,000 employees are handicapped anyway. It holds high priorities for raw material, made only by a temporary shortage of elastic webbing, now ended. However, limb makers are getting along voluntarily without much rubber and aluminum.

• **Substitute for Rubber**—The all-rubber foot was virtually standard. Now a foot has been built out of willow, canvas, etc., that uses only about 1% of rubber. It is claimed to be so satisfactory that



A 1-Man Combat Crew

● The army has enlisted Mobilift. This tough little giant is wading into the big job of keeping supplies and equipment rolling through our army warehouses.

But despite the big demand placed upon us by the army, a limited number of Mobilifts have been made available for essential wartime production...and additional machines may soon be released for other industries. Start now to make your postwar plans for improving your own inside transportation.

MOBILIFT

Moves Materials like a Giant!

VAUGHAN MOTOR COMPANY ★ 835 S.E. Main Street, Portland, Oregon

putations among old people. For to fit an artificial limb to a person years old or more was rare; now common.

● **Braces and Splints**—It is common to amputate a limb deformed less from birth, and to replace it with a useful one. As important as making, too, is the manufacture of braces and splints to restore action to thousands of the crippled and other bed-ridden victims of poliomyelitis.

There are about 1,200 firms in the field; 400 specialize in making braces and 800 make braces and splints. They are relatively small. Service is almost personalized as the physician's; the industry is largely a cash business. Cost of a limb averages about \$200, range being from \$125 to \$300. They are custom-made by skilled workers, though such parts as springs, joints, plungers are made in standard sizes to designs by central suppliers.

● **Consulted by the Surgeon**—It is customary now for the surgeon to consult the prosthesis as to the best site for amputation to assure satisfactory fitting of the artificial limb.

Little Inch Row

Sinclair's private pipeline stirs resentment of Washington oil jobbers, but work continues on another link.

While the gasoline-starved East is cheering the completion of the Big Inch pipeline built with \$95,000,000 of federal money (BW-July 24 '43, p. 14), Sinclair Consolidated Oil Corp. was bringing in, with very little fanfare, a new project all its own. It consists of a 1-inch pipeline running from Steubenville, Ohio, to Baltimore, Washington, from the Sinclair refinery at Marcus Hook, Pa., on the Delaware River below Philadelphia.

● **Solicited Orders June 16**—Though the line was only completed in the past few weeks, Sinclair celebrated the event by solicited orders through advertisements in Washington papers starting June 16. Thus Sinclair justified its reputation as one of the smartest operators in the business by capitalizing fully on the excitement over the completion of the Little Inch, which was sealed with welds, arcs and oratory on July 19.

Consumers have welcomed this new source of supply, but their enthusiasm has not been shared by Washington oil jobbers who suddenly are faced with new and powerful competition. Independent dealers protest loudly at the entrance of Sinclair upsets the prorate system by which available supplies have been partitioned throughout the Washington district. They are asking

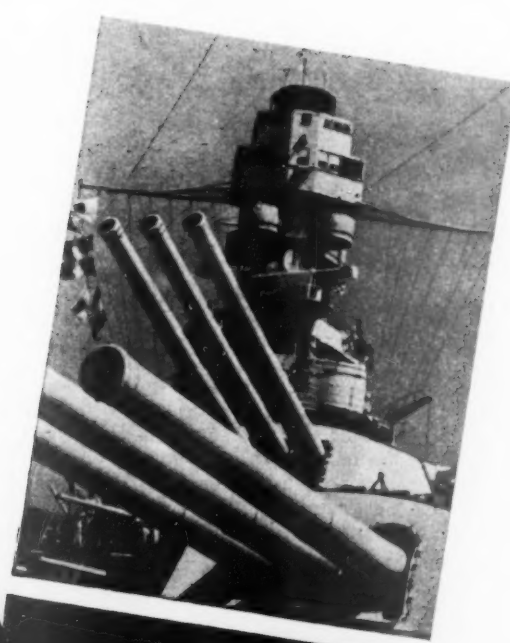
couple. For
to a per
rate; now
is comm
formed
replace
portant
manufac
tore acti
and othe
plomyel
0 firms
making
and spli
ce is al
man's; the
cash bu
out \$20
to \$300.
illed w
gs, joint
dard size
ers.
on—It is
on to co
est site
actory fa

OW
e pipe
ashing
contin

d East
e Big
000 of
p14),
was br
ure, a
ts of a
reuben
ngton,
cus Ha
below

though
e past
event
rtiseme
g June
utation
n the b
he ex
of the
weld

this
thust
hing
ced w
on. T
ddly
the p
supp
out
e ask



Electronic welding
now builds sections
for "battle-wagons"



HOW ELECTRONIC TUBES MAKE POSSIBLE THE HEAVY-DUTY WELDING OF STAINLESS STEEL AND ALUMINUM

This husky steel claw is a heavy-duty spot welder — a machine controlled by G-E electronic tubes which turns out super-structure sections for Uncle Sam's Navy.

Three sheets of stainless steel or aluminum, each .109 inch thick, are placed between electrodes. In a fraction of a second, electric current heats the metal at the point of contact, and fuses the sheets in permanent bond.

To perform this operation, the electronic welder exerts a pressure of 3000

pounds, requiring a current of 12,000 amperes — enough power, if applied continuously, to fly a bomber or haul a freight train.

Two kinds of electronic tubes make possible this heavy-duty resistance welding of stainless steel and aluminum. The G-E ignitron is the *power tube* that supplies the high current. The G-E thyatron is the *precision timer* which controls the passage of the current.

It is the purpose of G-E electronic tube engineers to aid any *manufacturer* of electronic devices in the application of tubes. General Electric, through its

nation-wide distribution system, is also prepared to supply users of electronic devices with replacement tubes.

FREE BOOKLET ON ELECTRONIC TUBES

Send us the names of interested men in your plant and we will keep them informed of electronic developments. For example, we would like to mail without charge an illustrated book entitled "How Electronic Tubes Work," written in easy and understandable language, and showing typical electronic tubes and their applications. Address *Electronics Department, General Electric, Schenectady, New York.*

Tune in "THE WORLD TODAY" and hear the news direct from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over CBS. On Sunday listen to "The Hour of Charm" at 10 P. M. E.W.T. over NBC.

PUTTING ELECTRONIC TUBES TO WORK FOR AMERICAN INDUSTRY

GENERAL  ELECTRIC
162-B12-8850

authorities for relief from the Sinclair "invasion."

● **Common Carrier?**—Grounds for the opposition are set forth in a protest by 40 independent dealers to Lester Scott, director of the oil industry's local marketing committee, which handles the allocation of petroleum products. The same arguments were laid before the public in newspaper ads. Copy asserts that a pipeline is a common carrier and that therefore no one supplier has a right to its exclusive use. "Accordingly (says the advertisement) no supplier, or dealer, has any special advantage as to supply, by reason of pipeline facilities, large storage capacity, railroad siding facilities, etc."

Gist of the independents' stand is that Sinclair has no right to come into the tank-wagon market and capture business it has not previously enjoyed. They resent the Sinclair trucks that are flaunting themselves on Washington streets. The independents allege that these are new trucks—a charge denied by Sinclair executives who retort demurely that they are only old trucks repainted.

● **Investigation Is Welcomed**—A main point made by the independents is that since the new supplies come in by pipeline, they must under present marketing

rules be allocated to all dealers, including themselves. Sinclair's position during all this hullabaloo is that the company is operating strictly within the law, that it has aided materially in alleviating the painful shortage, that it welcomes a full investigation of its activities. The officials claim that their sales are allowed in the quotas assigned them for the Washington-Maryland-Virginia zone.

When in full operation, the line will deliver 12,000 bbl. daily. The project fits into a pipeline strategy that may some day bring Sinclair products and crude into eastern markets all the way from wells on the Gulf Coast.

● **Flow Reversed**—Begun about a year ago, the Baltimore-Washington line originally was planned as a carrier of products from the Sinclair refinery at Marcus Hook to the West. After the laying of pipe had been started, the oil crisis in the East caused Sinclair high command to reverse the planned direction of its flow. Now the line pumps from the Steubenville terminal on the Ohio River eastward. The Steubenville end is fed by barges bringing cargoes up the Ohio from producing centers along the Gulf. It carries either refined products (for Baltimore and Washington) or crude (for the Marcus Hook refinery).

Also under construction by Sinclair is a pipeline from East Chicago to Toledo. The line starts at Sinclair's East Chicago refinery, connecting at that point with the company's pipeline from Gulf Coast fields. Completion of the East Chicago-Toledo section is expected fall. This line, 220 miles long, will abolish a 700-mile tanker haul around the Michigan peninsula.

● **Odds and Ends**—While the line from Washington and Baltimore was made of new material allotted in deference to the eastern oil shortage, the line to Toledo is a makeshift of odds and ends, is of old eight-inch pipe, picked up wherever Sinclair could dig it up. Result is low cost—about \$4,500,000. Present plans do not provide for carrying products from Toledo into the Northeast where the shortage is acute, but the lack provokes plenty of excited speculation in other directions.

Most obvious is the question of whether the line from Toledo will be extended to hook into the pipe running from Steubenville to the East Coast. The gap between Steubenville and Toledo is something under 300 miles. Right now it is probable that Sinclair could not get pipe and pumping equipment to bridge this gap even if it wanted to. But it is not too farfetched to imagine that the company intends to make the connection when peace takes the restrictions off pipeline supplies.

● **Sitting Pretty**—When and if the hookup is made, Sinclair will have a pipeline extending all the way from the lush crude wells of the Gulf Coast direct to the rich market of the Northeast, having refining capacity astride the pipe at East Chicago and at the Marcus Hook terminal.

Stove Ration Due

After many false starts, OPA feels program can get under way Aug. 24; small manufacturers will get the breaks.

Off-again, on-again plans for nationwide rationing of cooking and heating stoves have finally solidified to the point where OPA is pretty sure rationing can start Aug. 24.

● **Same Treatment for All**—Postponements up to now have resulted chiefly from the liquid state of WPB's production program. Last spring, WPB decided to do away with the concentration scheme which allowed only about half of the country's 245 stove manufacturers to continue production for civilian use (BW—Jun. 5 '43, p35). The first substitute plan was to allow any company to make stoves up to a flat percentage (probably less than 50%) of a base period. Thus large manufacturers

NEW SINCLAIR PIPE LINE BRINGS FUEL OIL DIRECT TO WASHINGTON

ROUTE OF NEW SINCLAIR PIPE LINE WHICH HAS A TERMINAL RIGHT IN THE DISTRICT OF COLUMBIA

Fuel oil users in Washington and vicinity now have a new all-weather source of supply. It's the new Sinclair Pipe Line, capable of delivering fuel oil direct to the nation's capital at the rate of 21,000 gallons an hour.

Washington's new pipe line and storage terminal makes Sinclair Fuel Oil Service available in the metropolitan area. If you are a fuel oil buyer, Sinclair is prepared to honor coupons and fill tanks now.

Take advantage of Sinclair's Coupon Deposit Plan. As a convenience to you, we will accept deposit of your OPA fuel oil coupons and deliver oil to you automatically in accordance with OPA regulations.

Today, find out how much Sinclair Fuel Oil Service may mean to your comfort and health next winter.

Just phone Randolph 3500—or fill in and mail the coupon below.

Please Randolph 3500 and ask for

SINCLAIR FUEL OIL SERVICE

WASHINGTON, D. C.

SINCLAIR FUEL OIL COMPANY
401 Foreign Street, N.E., Washington 11, D.C.

Please have your district representative get in touch with you.

My name is _____

My phone number is _____

My address is _____

Sinclair Refining makes good use of the public fanfare over completion of the Big Inch pipeline (BW—Jul. 24 '43, p14) by taking display adds in all Washington papers to announce completion of its own line to the capital.



"LONDON OR SINGAPORE, MA'AM?"

"To London, porter, Compartment 'A' — you're saying as you set out on the first stage—overnight on the *Sky-Sleeper* to London — of your world cruise in tomorrow's "age of flight."

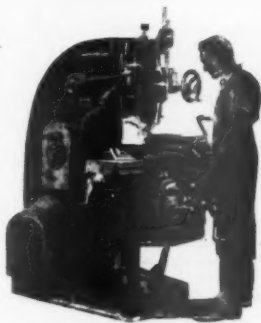
Your itinerary will probably include a visit to Bombay — Moscow — Buenos Aires — other far-away places, but all easily reached by the airways, being pioneered and explored now.

While you're aboard the air liner of the future, take a stroll to the observation deck — plexiglass covered, of course. Suspended in space above, you'll enjoy the view of cloud-crowned mountains below. Then look up at the night sky overhead for a new thrill in sight-seeing.

Yes — we'll be going places tomorrow just as we're "going

places" in advanced aircraft manufacture today — world leadership and progress that springs from the skill and ability of American aircraft builders working with American machine tools.

Kearney & Trecker Corporation looks ahead with confidence in the continuing development of the aircraft industry and the increasing importance of the machine tools that help to make such progress possible.



KEARNEY & TRECKER

CORPORATION
MILWAUKEE 14, WISCONSIN

"Buy Victory with War Bonds"

★ *Milwaukee* MACHINE TOOLS ★

(who had been frozen out by concentration) would have received the same treatment as small.

This policy wasn't too well received. The labor division of WPB and the War Manpower Commission reportedly objected because some of the large manufacturers were located in tight labor areas. The Smaller War Plants Corp. felt that the little fellows weren't getting a square deal.

• **Some May Go 100%**—WPB finally has worked out a scheme whereby small manufacturers—those with normal annual gross sales of less than \$2,000,000—will be allowed to produce up to 100% of the base period, the last half of 1940 and the first half of 1941. Small makers located in very tight labor markets (Group I) will be frozen out, however. But since the little fellows won't be able to meet the full program, some larger producers will be allowed in after consultation with manpower authorities.

Present estimates are that a total of around 4,300,000 stoves will be available for civilian use from April, 1943, through March, 1944. Roughly, this is the breakdown: 1,280,000 coal and wood heating stoves, 500,000 gas heating stoves, 160,000 oil heaters, 600,000 gas cooking ranges, 500,000 coal and wood cooking ranges, 600,000 kerosene and gasoline cook stoves, 40,000 combination ranges, 150,000 gas hot plates, 300,000 portable ovens, 70,000 to 80,000 laundry stoves.

• **Exceptions Listed**—Some types—water heaters, central heating equipment, portable gasoline camp cook stoves, some types of laundry stoves and airtight sheet-metal wood heaters, gas hot plates, and charcoal and alcohol burning stoves—will not be rationed. All equipment for industrial, commercial, agricultural, and institutional use is exempt.

• **Undecided on Total**—These figures contrast with sales of all types of stoves

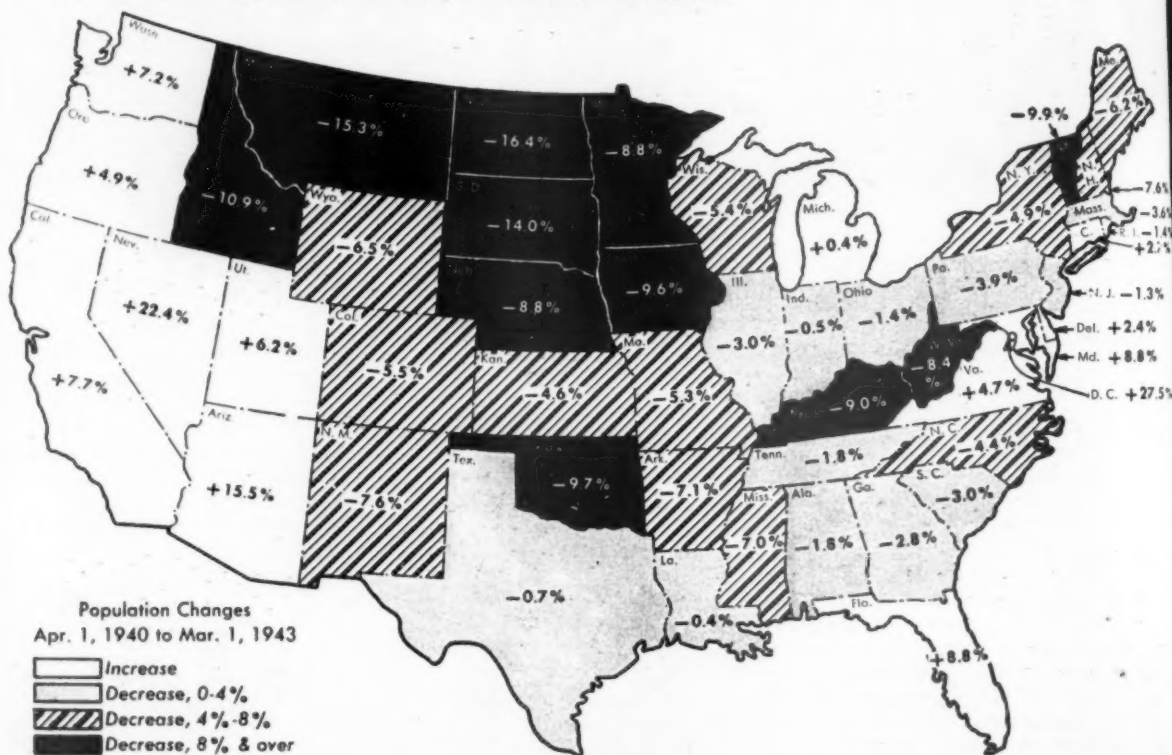
totaling 8,600,000 in 1941. WPB OPA are aware that, though the program includes some substantial increases over original estimates, it will be necessary to up quotas still further. A secondary object of rationing is to get a better idea of civilian needs, and to adjust quotas to fit them.

Electric stoves are not included in the rationing program because they have been under a WPB production program for so long that there aren't enough in dealers' and manufacturers' warehouses to go half way round. There is a possibility, however, that if civilian needs seem to warrant it, WPB will open up and allow limited production of electric ranges and heaters.

• **Another Exempt Type**—Likewise WPB's much-touted ceramic stoves (BW—Jun. 26 '43, p62) aren't included in rationing because production is just now getting under way. Chances are, however, that—being made almost

WAR FORCES POPULATION SHIFTS

All sections except West lose as Army takes men from civilian life



The civilian population of the United States decreased about 3,100,000 or 2.4% between the last official census of Apr. 1, 1940, and the registration for War Ration Book II on Mar. 1, 1943. The increase in the size of our armed forces far outstripped the normal population increment over the three-year period. The marked re-

gional variation in gains and losses is attributable principally to the shifting of civilian population to areas of greatest war activity. The chief such gains have occurred in Connecticut, Delaware, Maryland, Michigan, and the states on and near the Pacific Coast. Increases in Virginia and the District of Columbia, which scored the top

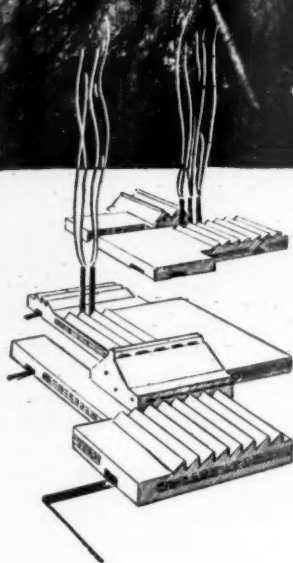
gain of 27.5%, stem from the upsurge in government personnel. California had the greatest numerical gain—more than half a million people. Rural states, mostly in the Midwest, experienced the largest losses—North Dakota was down 16.4%, biggest percentage loss of all—but New York lost the most people, over 650,000.

1. WPB
 h the pro
 substantia
 nates, it
 still fun
 ming is t
 needs, b
 included
 because
 oduction
 enough
 trers' im
 l. There
 if civil
 WPB
 product
 rs.
 —Likew
 mic sho
 included
 on is on
 y. Chan
 ade alm

6.2%
 7.6%
 -3.6%
 -1.4%
 +2.7%
 -1.3%
 -2.4%
 -8.8%
 +27.5%

Business Week
 upsurge
 California
 —more
 Rural
 experi
 th Da
 est per
 York
 50,000.

1943



Harvesting "Food"

for War-Hungry Machines

AMERICA'S busy production lines have an insatiable appetite for raw materials—of which metals are the most essential. So the nation's mines must "feed" the nation's machines.

To keep abreast of this demand, the mining industry relies extensively on Cleveland Rock Drills. For Cleveland Rock Drills have proved in 35 years of peacetime performance that they are made to order for the toughest wartime jobs. Speed plus stamina, advanced design and economical operation are well-known features of all Cleveland drills.

An experienced Cleveland engineer will gladly tell you how our equipment for mining and construction work will help solve your drilling problems.

BUY U. S. WAR BONDS AND STAMPS

THE CLEVELAND ROCK DRILL CO.

Division of The Cleveland Pneumatic Tool Company

CLEVELAND 5, OHIO

Branch Offices in All Principal Cities and Mining Centers

**CLEVELAND
 ROCK DRILL EQUIPMENT**

includes:

Sinkers, drifters, stopers
 jumbo drill rigs, paving
 breakers, clay diggers,
 tampers, wagon drills.

Also a complete line
 of accessories



A new war tool

from a veteran

toolmaker



Modern warfare has created demands for new types of fighting equipment—which, in turn, requires new kinds of production tools.

Disston, with more than a century of experience in fine toolmaking, is helping to solve many of these wartime problems.

One such important job was the manufacture of a special file—for work on a troublesome piece of Army Ordnance. The specifications were most stringent. The double bevel on the edge of the tool had to be cut with a file surface of 98 teeth to the inch, and the edge formed by both bevels had to be held to a perfectly straight line. Furthermore, special dies had to be made to hold the file to the correct radius during the heat treating operation.

Disston succeeded in producing a highly satisfactory file under these difficult requirements. And it is the same skill and care that provide you with better performance and longer life in such standard tools as Disston files and rasps, wood and metal cutting saws, hack saw blades, tool bits and machine knives.

Conserve vital man-minutes in your plant with Disston quality tools—and with free Conservation Control instruction cards on tool use and care. For complete information write Henry Disston & Sons, Inc., 828 Tacony, Philadelphia 35, Pa., U. S. A.



This special file is made with the fine craftsmanship and extraordinary skill that are traditional at Disston . . . The same high standards of quality found in such other Disston Products as Beet Shred-ding Knives; Carboly-fitted Saws for milling the fins on forged aluminum alloy cylinder heads; Gasoline-driven Chain Saws for the U. S. Armed Forces; and immense Inserted Tooth Saws for cutting alloy steels in the manufacture of tanks and marine equipment.

DISSTON

Conserve Man-Minutes



and help win the war •



PROTESTS CLICK

A wave of indignation has forced modification of Vermont's liquor control program after only eleven days of operation. The new consumer rationing system, which went into effect July 12, limited sales to one quart a week per customer and provided, with OPA permission, that state liquor store clerks must stamp the date of each purchase on the inside back cover of the customer's War Ration Book No. 2 to insure compliance.

Vermonters naturally objected to the rationing, much as residents of other states in which quart-a-week systems have been instituted (BW—Jun. 26 '43, p. 80). But their principal gripe was the use of their ration books, on the ground that they didn't want a record of family liquor buying where the butcher or grocer could so easily see it and start gossip.

Protest reached such a peak that State Liquor Commissioner Park C. Beede announced on July 23 that use of ration books would be discontinued as soon as liquor registration cards could be prepared and distributed.

entirely of noncritical materials—the will be exempt from rationing when they do go on the market.

The rationing program will supersede the present rationing of coal and oil heaters in the 32 states rationed on fuel oil. OPA ration boards, in areas where oil supplies are tight, will get low quotas on oil burning equipment. Likewise, in some areas, boards will not be allowed to issue certificates entitling consumers to buy gas heating equipment except for essential replacements.

HARVEST CORRECTION

In a recent report on the wheat harvest in Oklahoma (BW—Jul. 3 '43, p. 14), Business Week said, "Shortage of harvest machinery this year proved more theoretical than actual. In the yard of the J. I. Case dealer at Enid, at the height of the harvest, stood a shiny new combine, prominently marked 'For Sale.'"

Paul M. Mullikan, executive secretary of the National Retail Farm Equipment Association, and W. L. Clark, vice-president of the J. I. Case Co. at Racine, Wis., both now advise that this was a regrettable case of mistaken identity; the company's Enid dealer has had no combines for sale. Both add that, as the harvest moves north, they are receiving reports of wide shortages of machines to handle it.



The self-sealing gas tank that was and wasn't

THESE SELF-SEALING fuel tanks for aircraft were made of a secret rubber composition.

When hit and pierced by a bullet, the composition quickly flowed together and sealed the holes.

This was a major triumph of science. "But now," said the plane designers of the Army Air Forces, "let's put metal around these self-sealing gas tanks, just as they'll be in the wings of a combat plane."

And when they did, a strange condition arose. The tanks weren't *always* self-sealing! Here's what was happening.

"Flowering" Metal

When a bullet passed through the metal surrounding the tanks, it caused the metal to "flower out" on the inside. The metal, therefore, "flowered" into the rubber gas tank. The jagged pieces of the "flower" acted as hooks and pre-

vented the rubber from flowing together and sealing the holes in the tank.

To remedy this trouble and give pilot and plane a better fighting chance, the Army Air Forces had to find a material to place between the metal and the tank where the aircraft design required it.

This material had to be enormously strong, extremely light, and, unlike any metal, it must not "flower out" when hit by bullets.

Glass Helps Do It

The search was a long and exhaustive one. The Army Air Forces finally ended up, not with *one* material, but *two* . . . a new synthetic plastic reinforced with a new basic material of *glass*!

This glass is different from the glass in windows. It is *glass in the form of cloth*.

This glass cloth and

plastic combination resulted in an extraordinary new type of material. It did not "flower out." Was extremely light; in fact, for its weight, it was *many times stronger than steel*.

Glass textiles are one form of Fiberglas,* a new basic material proved and developed for many uses a few years before the present war began.

In all branches of the armed services, you find examples like this, where determined engineers are using the newest ideas, most advanced materials and methods to build better fighting equipment than our foes.

That is why every one of us at Fiberglas is doing his bit to help 24-hour production—so that the Army and Navy can depend on Fiberglas for steadily increased production to meet their many requirements. *Owens-Corning Fiberglas Corporation, Toledo, O. Fiberglas Canada, Ltd., Oshawa, Ont.*



FIBERGLAS

*T. M. Reg. U.S. Pat. Off.

WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Glass Containers

Emergency demands for wide-mouth glass containers from commercial food packers and others have led to a revised OPA ruling to cover cost of production by manufacturers new in the field. High-cost producers are enabled to recover their total costs of production and sales up to 15% over the dollar-and-cents ceilings set by Regulation 382. Factory costs and freight, but not sales costs, may be recovered up to any amount where total costs exceed established ceilings by 15%. Manufacturers are required to file applications showing costs, which, if in excess of ceilings, may not be passed on to the ultimate consumer of packaged goods.

To overcome the acute shortage of glass containers in the West, the ruling also establishes a method by which eastern manufacturers may recover actual freight in excess of the maximum usually absorbed. (Amendment 2, Regulation 382.)

Tallow and Grease

Up to 30% of tallow and grease output after Aug. 1, 1943, will be reserved for essential war industry. War industries must apply for authorization for September deliveries by Aug. 15. Soap manufacturers, the largest users, are not permitted to apply but will keep up current production of soap by using crude soybean, palm, and coconut oils recently released for this purpose.

Inventories of tallow and grease users will be held to a 45 days' supply, producers' and dealers' inventories to a 15 days' supply. (Food Distribution Order 67.)

Trucks, Buses, and Trailers

All new trucks, buses, and commercial trailers, on which limited production was recently resumed, have been placed under price control by an order that establishes uniform provisions for all sales of second-hand machines which were sold on a delivered or installed basis when new.

Trucks, buses, and trailers manufactured after Aug. 12, 1943, are covered at any level, as Appendix B items—meaning that their prices reflect Mar. 31, 1942, levels generally. Vehicles for military use are excluded. Cars and trucks classified as material handling equipment remain covered by Appendix A, which provides formula prices at October, 1941, levels. Trucks in the ration stockpile will continue under GMPR, at prices almost equivalent to those set for new vehicles under the new amendment. (Amendment 96, Regulation 136.)

Cotton Linters

Bedding and upholstering industries will soon have available about 25% of the supply of cotton linters as a result of an amended WPB order limiting the purchase of cotton linters and hull fiber for use in the manufacture of chemical cotton pulp.

Previously, all the linters production of the cottonseed oil mills was delivered to Commodity Credit Corp. for use in chemical cotton pulp to manufacture explosives. Hereafter, deliveries to CCC will be as directed by WPB, whose present directive calls for 75% of the output for chemical and 25% for civilian uses. The existing stockpile of raw cotton linters is sufficient to enable WPB to take this action, which will allot chemical linters to each mill on a prorata basis. (Order M-12, as amended.)

Farm Machinery

Manufacturers of farm machinery and equipment are authorized by the War Food Administration to distribute up to 40%

of their production, in the year beginning July 1, 1943, of items rationed under Order L-257, provided that they have filled WFA's quotas of items rationed in last year's program (Order L-170). This action, a step toward WFA's simplified system for distributing machinery, soon be followed by a permanent program. (Supplementary Order 5, Food Distribution Order 3.)

Farm equipment retailers, may, July 31, pass on to consumers their transportation charges instead of a combined freight charges, so that they won't have to incur losses on shipments of less-than-carload lots. (Amendment Regulation 133.)

Footwear

Increased output of footwear has been authorized up to 25% for boys', children's, and infants' shoes, and safety shoes, and up to 15% for work shoes, according to a WPB amendment designed to meet the great demand for these items. An additional increase



Allis-Chalmers Mfg. Co. La Porte, Ind.	Eitel McCullough, Inc. Salt Lake City, Utah	National Standard Co. Worcester, Mass.
American Car & Foundry Co. Berwick, Pa.	Fansteel Metallurgical Corp. North Chicago, Ill.	Nestle's Milk Products, Inc. Sunbury, Ohio
American Cyanamid & Chemical Corp. Little Rock, Ark.	S. W. Farber, Inc. Brooklyn, N. Y.	New Idria Quicksilver Mining Co. Idria, Calif.
Apco-Mossberg Co. Attleboro, Mass.	Marshall Field & Co. Spray, N. C.	The Newark Stove Co. Newark, Ohio
Atlas Imperial Diesel Engine Co. Mattoon, Ill.	Ford Motor Co. Richmond, Calif.	Seymour Products Co. Seymour, Conn.
W. A. Baum Co., Inc. New York, N. Y.	Fox Paper Co. Lockland, Ohio	Simmons Co. Elizabeth, N. J.
The Bell Machine Co. Oshkosh, Wis.	Gates Rubber Co. Denver, Colo.	Standard Wholesale Pharmaceutical & Acid Works, Inc. Baltimore, Md.
Belle City Malleable Iron Co. Racine, Wis.	General Machine & Mfg. Co. Berwick, Pa.	Steel Products Co., Inc. Savannah, Ga.
G. H. Bishop Co. Chicago, Ill.	Indian Motorcycle Co. Springfield, Mass.	Tantalum Defense Corp. North Chicago, Ill.
Buckeye Cotton Oil Co. Memphis, Tenn.	International Minerals & Chemical Corp. Carlsbad, N. M.	Trackson Co. Milwaukee, Wis.
Camillus Cutlery Co. Camillus, N. Y.	Jarecki Machine & Tool Co. Grand Rapids, Mich.	Union Bleachery Greenville, S. C.
Century Boat Co. Manistee, Mich.	Charles Lennig & Co. Philadelphia, Pa.	United States Spring & Bumper Co. Vernon, Calif.
Chicago Wheel & Mfg. Co. Chicago, Ill.	Link Belt Co. Chicago, Ill.	John R. Wald Co. Milton, Pa.
Conover Steel Co. Glassport, Pa.	McCormick & Co., Inc. Baltimore, Md.	Waterbury Clock Co. Waterbury, Conn.
Dewey & Almy Chemical Co. Cambridge, Mass.	Modine Mfg. Co. Racine, Wis.	West Michigan Steel Foundry Co. Muskegon, Mich.
	Murphy Elevator Co. Louisville, Ky.	

(Names of winners of the Army-Navy commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

SHE'S A
WOW★



PHOTO COURTESY THE HOSDREG CO., INC., HUNTINGTON, INDIANA

SHE'S GINNY CLOSE—21 years old—95 pounds—married—member of the 10% Club—she's a WOW*. In fact she's the smallest multiple spindle automatic lathe operator in the world.

But she holds a more important record—2286 shells produced in 8 hours with the help of her 8-spindle Conomatic. She does her own tool setting, loads the machine with stock, beats the boys at their own game, then

takes care of her six room house, and feeds 100 chickens and a farmer husband.

The Hosdreg Company is pretty proud of Ginny, with her cheerful attitude and happy smile—and also proud of their Conomatics, with their easy operating features and outstanding production capabilities. Get a WOW like Ginny and a Conomatic on the job, and you're bound to break more than one record!

*Woman Ordnance Worker

CONE Automatic Machine Company, Inc., Windsor, Vermont



Target for tonight — Berlin! And somewhere in England huge tractor-trailers roar toward secret airfields, with two-ton block busters. Now speeding over smooth highways, next crawling along rough country terrain — but always kept under safe, complete control by Warner Electric Brakes. And soon giant wheels on huge cargo planes and many other types of power equipment will be *braked electrically*. Warner Electric Brakes on essential motor transports and artillery pieces are proving their dependability on the battlefields of the world — from the ice-bound regions of Iceland to the burning deserts of Africa — and after the war they will be available for a wide range of new power braking applications.

Warner Electric Brake Mfg. Co.
Beloit, Wisconsin



CONTROLLED SPLIT-SECOND STOPPING POWER FOR ANY PURPOSE

48 • War Business Checklist

production may be possible by shifting used quotas for men's and women's wear to quotas for work shoes and children's and infants' shoes. (Order as amended.)

Specialty Foods and Beverages

A revised method has been established for adjusting downward prices of specialty foods and beverages when changes in their formulas increase processors' costs. To avoid hardship cases and save paper, changes in formulas will not necessitate changes in maximum prices if the new is between 95% and 100% of the total present ingredient cost of the original formula. For cuts in cost below 95%, the price will be decreased by 5% of the original maximum with each 5% decrease in cost of new formula. (Amendment 6, Supplementary Regulation 14.)

Fruits and Berries

Formulas by which canners will establish maximum prices for their 1943 packed fruits, berries, fruit cocktail, fruit nectars have been announced by OPA in an amendment listing specific prices for red sour cherries, in dollars and cents per dozen cans, on a regional basis.

Formulas for fruits and berries are identical. Prices are determined by deducting from the packer's maximum price per dozen for the 1942 pack, f.o.b. factory, of the same variety, style grade, and container the total 1942 raw cost per dozen containers as computed under MPR 185, adding the 1943 raw fruit cost per dozen containers, within the limits of this regulation. (Raw fruit cost is obtained by taking the weighted average paid to the grower in 1943, based on not less than the 75% of the canner's purchases, by the dozen container yield per ton, or other unit used in 1942.)

In certain states, a specified factor is added to cover labor costs.

When application of the regulation results in increased prices, canners must give formal notification of this fact to purchasers on a form prescribed by OPA. (Amendment 11, Regulation 306.)

Graphite

To conserve the available supply of graphite, the manufacture of graphite crucibles has been placed under control. Certain standard sizes, as well as some special sizes, may no longer be made, and no manufacturer may produce any size of special crucible which he has not previously produced. (Supplementary Conservation Order M-61-a.)

Paper Articles

To conserve pulp, paper, and paperboard, restrictions on the manufacture of articles made of these materials have been tightened considerably in relation to 1942 production. On such articles as balloons, camouflage paper for military use, production is unlimited. Items for civilian use which are unrestricted because of their essentiality include abrasive paper, shoes, and shoe parts. Other important paper articles for civilian use on which full 1942 output is permitted are artificial leather and

Business Week • August 7, 1943

by shifting
women's
shoes and
(Order M

Bever

been estab
rices of
s when d
processors
save paper
not neces
if the new
of the tota
original for
the price
original
in cost
6, Suppl

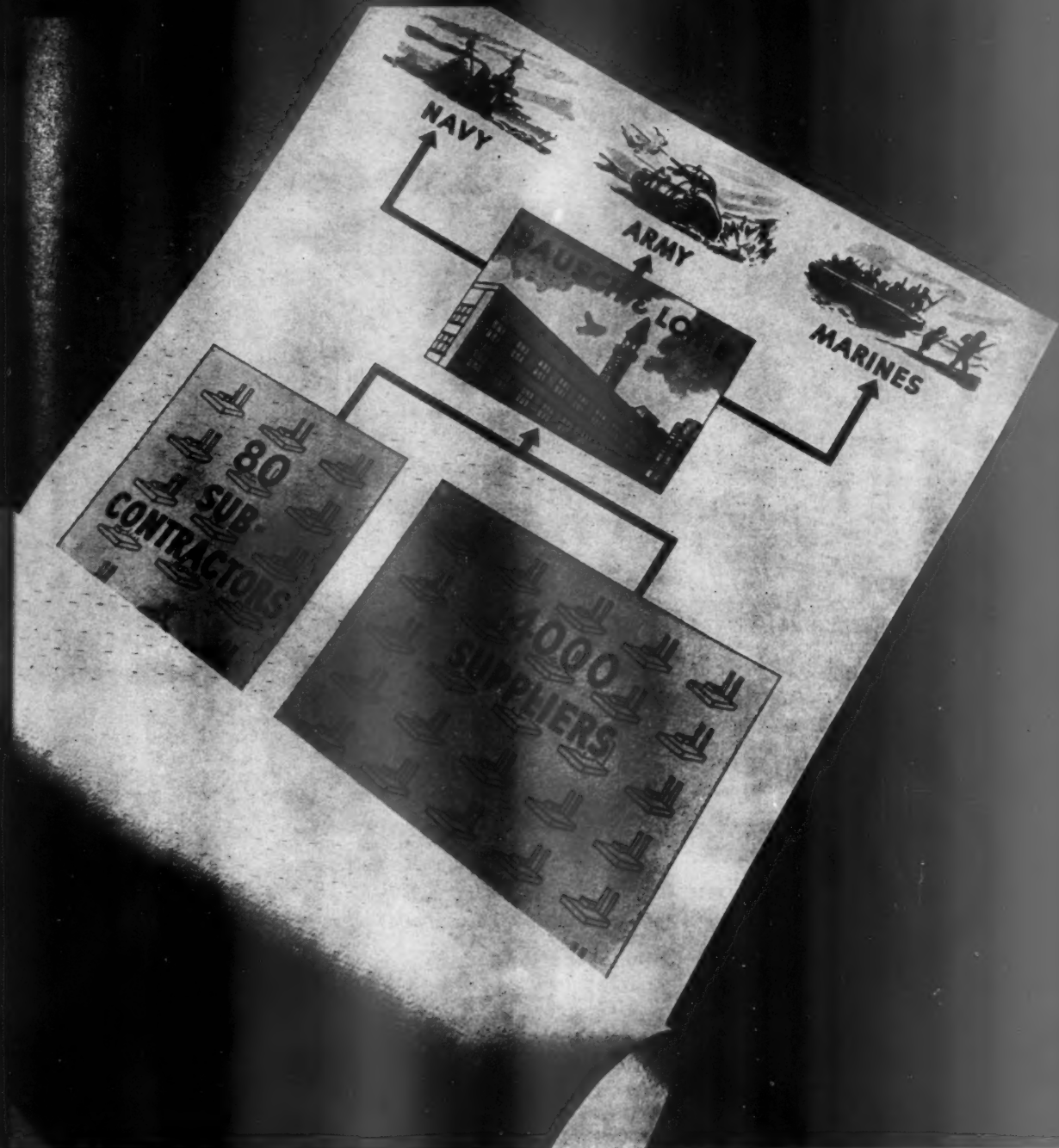
s will est
1943 pack
, fruit
anced by
specific
lars and
onal bas
ries are id
by deduct
rice per d
actory, of
nd conta
r dozen
IPR 185,
ost per d
of this
ined by d
to the g
than the
by the d
her unit

ied fact

regulation
ers must
to purcha
A. (Am

e supply
graphite c
ontrol. C
some spe
nd no m
e of spe
viously p
vation On

and pop
manufact
s have b
on to 14
balloons
use, prod
civilian
e of the
, shoes,
uper artic
942 outp
rather
7, 194



This Is America's Most Powerful Weapon

From early pioneer days when the neighbors all pitched in to help the new home-

leader raise the log walls of his home, a spirit of cooperation that is typically American has helped this country raise the good, four-sided walls of Freedom. Now, in the midst of the world struggle for defense of Freedom, we see more clearly than ever the tangible evidence of that cooperative spirit.

This is the story of Bausch & Lomb... but it is also the story of all American industry... a reflection of the spirit of those who fight side by side... and a launch, shoulder-to-the-wheel challenge

to those who said Americans are weak.

Because Bausch & Lomb alone was capable of producing so many of the precision optical instruments needed by the armed forces, war brought the need for a tremendous and rapid expansion of its facilities.

How was that need met?

You see the answer in the chart above... a chart that tells of the wholehearted cooperation of thousands of other manufacturers. Today, there are 80 sub-contractors, many of them small producers, cooperating with Bausch & Lomb in the task of fulfilling its war contracts. They make assemblies, sub-assemblies and parts for Bausch & Lomb war instruments. There are more than 4,000 sup-

pliers who are regularly delivering materials to Bausch & Lomb... steel, brass, sand, rubber, paper, diamonds... hundreds upon hundreds of different raw materials that go into the optical instruments of war. Sub-contracts, supplies and taxes account for more than 60% of the total B&L war contract dollar.

In this chart you see a blueprint of industrial cooperation... a blueprint of America's most powerful weapon.

BAUSCH & LOMB
OPTICAL CO. ROCHESTER, N. Y.

ESTABLISHED 1853

Ready to Work Shoulder to Shoulder With Your Organization... WITHOUT LOST EFFORT on SUB-CONTRACTS



Management Engineers Trained Workers

• As a source for Sub-Contract work to supplement your own war production you'll find Craft offers you all the advantages you are looking for: Specialized experience and trained craftsmen... an engineering department that's expertly manned... a modern plant and streamlined facilities.

Equally important, we offer you capable management and the dovetailing of our efforts with yours, so that we function as a department of your own business.

Write or phone for further information
and send blue prints for prompt quotation

METAL FABRICATION SERVICES AVAILABLE

SPINNING
STAMPING
PICKLING
WELDING
ANNEALING
DEEP DRAWING
SHEET METAL WORK

Craft MANUFACTURING CO.
1512 No. Fremont St., Chicago
Stainless Steel Specialists

MERIAM MANOMETERS

—measure low pressures of gas, air, liquid, e. g., gas pressure at burners, furnace draft, liquid level in tanks; also differential pressures across valves and orifices. • Accurate, inexpensive and reliable. • The result of 32 years' specialization. Ask for Catalog C-10.

THE MERIAM COMPANY
1999 West 112th St. • Cleveland, Ohio

MERIAM

— THE INSTRUMENT PEOPLE —

If You Use
WHEELS
or **AXLES** —
You Need Our
Engineering Experience!



We've helped industry "keep 'em rolling" for over half a century, with millions of dependable steel wheels and axles for every use: tractors, trailers, road machinery, air compressors, agricultural implements, welders, etc. If you need any kind of wheels for your product,

Write for Illustrated Bulletin No. 220

EMC WHEELS
ELECTRIC WHEEL CO., DEPT. BW, QUINCY, ILL.

toilet tissue; household and industrial products in the same category cover such items as facial tissues and paper dishes. After Aug. 1, 1943, products in a fourth class are cut to 80% of 1942 production; these include carpets, games, and toys. An amendment governing prohibited articles permits their manufacture until Oct. 31 if the manufacturer or converter has materials in hand acquired expressly for the purpose. For the final quarter of 1943, production of items not specifically covered is limited to 70% of the paper tonnage used in producing the same items in the corresponding 1942 quarter. (Order M-241-a, as amended.)

Camelback Prices

Since synthetic rubber can now be used in the production of camelback, manufacturers' ceilings for that product are extended to cover grades made of synthetic rubber, at the same levels, grade for grade, as those for camelback made of crude or reclaimed rubber. (Amendment 4, Regulation 131.)

Abrasives

Aug. 10, 1943, instead of Aug. 15, is the new deadline for applications for authorization to deliver or use manufactured crude abrasives for the September-October period. (Order M-319, as amended.)

Bread Deliveries

Four deliveries of bread and other perishable bakery products may be made weekly, instead of three, by motor vehicles in the eastern gasoline shortage area, provided such delivery is exclusively to retail customers and provided it is not made on more than two consecutive days over a single route. This new ruling is expected primarily to facilitate delivery on the peak days of Saturday and Monday. (General Permit ODT-17-28.)

Heating Equipment

Distribution of extended surface heating equipment is restricted to "Approved Orders"—those which specify a delivery date, are rated AA-5 or better, or which are for repair parts. This WPB revision of Order L-107 cuts the number of sizes and types of heating equipment. This includes unit heaters, ventilators, blast and special heating coils, and convectors. Gas or other direct fired unit heaters are not covered. (Order L-107, as amended.)

Cottonseed Prices

In a move to stimulate greater production of cottonseed oil, meal, and linters, for war purposes, an increase of \$6.00 per ton over last year's support prices has been made, according to a War Food Administration announcement. The new prices are \$55 per ton, f.o.b. shipping point in Oklahoma, Texas, and New Mexico, and \$56 per ton, f.o.b. shipping point in all other producing states. The prices will be supported by Commodity Credit Corp.

Navy Uniforms

Maximum prices for the new gray summer work uniforms for Naval officers (BW—May 8'43, p.29) have been set for

manufacturers, wholesalers, and retailers ranging down from \$19.95 to \$15.38 a suit and from \$13.72 to \$10.25 a suit (Amendment 2, Regulation 135.)

Denaturants

Four denaturants, in addition to isobutyl Ketone, have been placed under allocation control to assure a supply of antifreeze compounds next winter. Denaturants that come under the order are St-115, Dehydrol-O, G. C.-78, and acetone (Order M-340.)

Beef Reserves

The amount of steer and heifer carcasses meeting Army specifications which slaughterers operating under federal inspection are required to set aside for the armed forces has been reduced from 45% to 30% of slaughterers' weekly production, for the period ended July 31, and to 40% for future weeks. This 40% represents about 18% of total commercial beef production. Delivery of this reserve must be in the form of carcasses; packers are urged to supply the reserve with boneless frozen beef. (Amendment 1, Food Distribution Order 28.2.)

Luggage

While general restrictions on luggage remain the same (BW—May 8'43, p.70), the use of iron and steel for valances, bindings, and corners on foot lockers and for handle bracket assemblies in men's wardrobe luggage is permitted by a WPB amendment that also increases the allowable length of physicians' bags from 16 to 18 inches. (Amendment 1, Order L-284.)

Kapok

As a result of the diminishing supply of kapok, WPB has restricted its use to military items: life vests, life jackets, life preservers, life saving cushions, and insulation padding for aircraft. The only other use permitted are those authorized on Form WPB 1076; sales of kapok are allowed when they are allocated on Form 2562. (Order M-85, as amended.)

Other Priority Actions

WPB Order L-312 requires processing of industrial wiping cloths to set aside 25% of their entire poundage production for military use. . . . A preference rating of AA-2 has been assigned to repair shops to permit them to buy as much welding rod as they bought during the previous month, up to \$100 worth; any shop, however, may buy \$15 worth in any month. (Direction 10, CMP Regulation 5.)

Other Price Actions

The provision that raw material costs for paperboard products must be computed at levels no higher than Mar. 31, 1943 maximums has been extended to Oct. 1, 1943, by Amendment 5, Regulation 187. . . . A maximum price of \$22 a ton for pilchard in California ports of entry has been established, and a price of 2¢ a pound for pilchard when sold for bait, from Aug. 1, 1943, through Feb. 5, 1944, by Amendment 2, Regulation 418.

We of RUSTLESS have always held to one unfaltering purpose. Unlike any other plant in America, our entire resources are concentrated upon the production of Stainless Steel. In following this course we have (1) developed the "know-how" of making the finest quality Stainless Steel (2) gained user acceptance that has resulted in our becoming the largest producer of Stainless Steel in the United States and (3) through the use of unique processes developed by us, this production is being attained with the minimum use of strategic materials, especially Chromium and Electrolytic Nickel. The RUSTLESS processes are primarily based on the recovery of these materials from ore, charged directly into the furnace, and from Stainless Steel scrap. Thus RUSTLESS is not alone producing the finest quality Stainless Steel, but is conserving scarce Chromium and Nickel for other war purposes.

**A *Star*
TO
STEER BY**


RUSTLESS
CORROSION AND HEAT-RESISTING
STAINLESS STEELS

RUSTLESS IRON AND STEEL CORPORATION
BALTIMORE, MARYLAND
Producing Stainless Steels Exclusively

BUY MORE WAR BONDS AND STAMPS

War Calculations Shift

Possibilities of political upheavals within Axis nations alter thinking on war's end. Japan, sorely tried economically, might possibly crack—but not even Italy is out yet.

Mile-by-mile battles for artillery-torn soil in Sicily and Russia fade into the background when whole nations teeter in the balance between war and peace.

It is easier, after the fall of Mussolini, to weave the pattern of European disintegration; to depict a falling-away of one or another Balkan state; to envisage the wrathful rising of oppressed peoples in Norway, France, or the Low Countries.

• **Way Paved for Revolt**—By subtracting the economic price each satellite or occupied nation has paid to the Reich, Germany can be denuded, left ripe for revolt against Nazism, for anarchy, or both.

But the thinking is hasty. Italy is not out of the war; her territory is not yet a jumping-off point for Allied armies and bombing squadrons. All that remains is the assurance that the war has been shortened, that similar bloodless, or nearly bloodless, victories may speed the war's end. Predictions that Germany will be licked in mid-1944 are being cautiously pared to permit leeway for dramatic and unpredictable political maneuvers.

• **Paradox of Timing**—For American business the trend has meaning. The longer the war in Europe (BW—Mar. 20'43,p13), the shorter will be the war in the Far East; the shorter the European phase, the longer it will take to lick Japan. This is because mounting Allied power will reach its peak next year and not before, and a swing to the Pacific before then would mean time added to the Far Eastern timetable.

Yet assurance that Japan will be the focus of attack sooner than expected increases the need for gaining perspective on the potentials of that foe.

• **Geography Japan's Ace**—A wealthy industrial nation is likely to judge other nations, and particularly its enemies, by its own standards. This was a mistake that was made in estimating German strength in 1939; it is one that could easily be made now or next year in regard to Japan. Japan is no match for the United States in even battle, but the odds are not even geographically; Japan's economy has weak spots, but these are not yet fatal or uncorrectable.

Japan's investment in the China Incident has been estimated at roughly 30% of her annual military output,

manpower losses omitted. Balancing Japanese war expenditures and estimates of forces and equipment used in China makes it clear that the period 1937-41 was one of military stockpiling for Japan.

• **Two Key Industries**—Only hazardous estimates of current Japanese output of arms, planes, ships, and other munitions are available, but by analyzing what is known about two important factors in the economy—shipbuilding and steel—it is possible to gage the position of the Japanese war effort, based primarily on these industries.

In October, 1940, Japan's merchant marine included 4,214 vessels aside from sail-driven craft above 20 tons, a total of 5,702,641 gross tons. In addition, she had 16,859 sailing vessels with a total of 1,070,718 gross tons—70% of the tonnage and 90% of the number above 20 but under 100 gross tons. Only a few topped 300 tons.

• **Production and Losses**—During the 'thirties, Japan expanded shipbuilding capacity. The known output of 469,000

tons in 1937 is said to have jumped to 700,000 tons last year. The objective probably not reached, was 1,000,000 tons a year. Annual losses through accident and age are calculated to be around 200,000 tons a year.

Japan's investment in new shipbuilding facilities increased from just below 1,000,000 yen in 1937 to better than 3,000,000 yen in 1941. Allowing for inflation, the annual investment must have more than doubled in the three-year period. Allowing for difficulties in producing enough steel for further tonnage increases, and accepting reports that greater emphasis is being placed on the construction of 100, 150, and 250 gross ton wooden vessels, an estimate of current output of 700,000 tons is still generous.

• **Sinkings a Big Factor**—On the debit side are Allied sinkings. Secretary of the Navy Frank Knox put Japanese losses to Mar. 1, 1943, at 1,857,000 gross tons and, calculating replacement and salvage, figured merchant tonnage at 14% below November, 1941. Since then, the Allied toll of Japanese ships has risen.

Another debit item is the change which has taken place in Japanese ship requirements for home industry—entirely aside from the expanded needs of the new empire. Before the war, Japan's industry and transport depended on imported scrap iron and gasoline. Machinery to the tune of over \$30,000,000 a year was imported.

• **Larger Tonnage Required**—Now Japan must dig and import iron ore; gasoline must be produced from crude oil on



PLOESTI PLASTERED

Despite growing feeling that oil supply is not the weakest spot in the Axis armor, 175 Allied planes have dropped 300 tons of bombs on Rumania's Ploesti oil fields. Once the chief

source of the Reich's high-octane fuels, it now appears to be far less than a 90% supplier—especially since expansions in other occupied lands. A previous Ploesti raid missed fire because of expert camouflage, but this one was on the target.

nearby Sakhalin or brought by ship from the Indies; coal must be imported to process the iron ore. These changed imports require more tonnage.

At the other end of the line, however, Japan has adapted her merchant fleet to the exigencies of battle, using heavy ships for long ocean hauls, keeping sailing and fishing vessels inshore and for shuttle service to the front from protected bases like Rabaul. Allied tolls are smaller in tons per ship in the battle

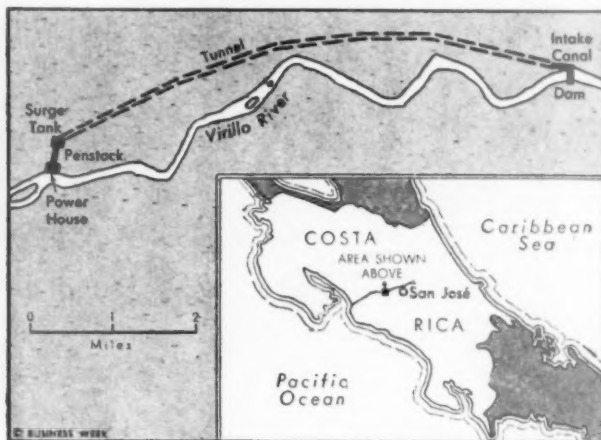
zones, and the ships themselves are harder to hit.

● **Scrap Slows Steel**—In steel, Japan's position is unenviable but not disastrous. Output is estimated to be around 9,000,000 tons a year—about one-tenth U. S. production. But Japan's capacity was based largely on imported scrap, and raw materials have not been arriving on schedule. Despite stockpiling and redoubled efforts to bring in the scrap, Japan's steel output is below require-

ments. Measures are being taken in an effort to remedy this situation.

Throughout the empire, Premier Hideki Tojo claims:

"Coal, iron ore, and lime are found to such an extent that they are rotting away. The construction of blast furnaces in these areas and the manufacture of pig iron in these places will greatly supplement transportation power. Because they can be constructed in three months, at the present time these small blast furnaces are being



COSTA RICA POWER

Costa Rica has no grandiose dreams of a Tennessee Valley Authority-like development of its rich valleys, but war or no war its power facilities are being expanded with the aid of mat-

terials and equipment from the U. S.

Just back from a tour of Central America, an editor of McGraw-Hill's Engineering News-Record reports that a new power project nearing completion will add 10,000 kw. to the nation's existing 18,000-kw. capacity. The job is being done by Compania Nacional de Fuerza y Luz of San José, C. R., a subsidiary of American and Foreign Power Co., of New York City.

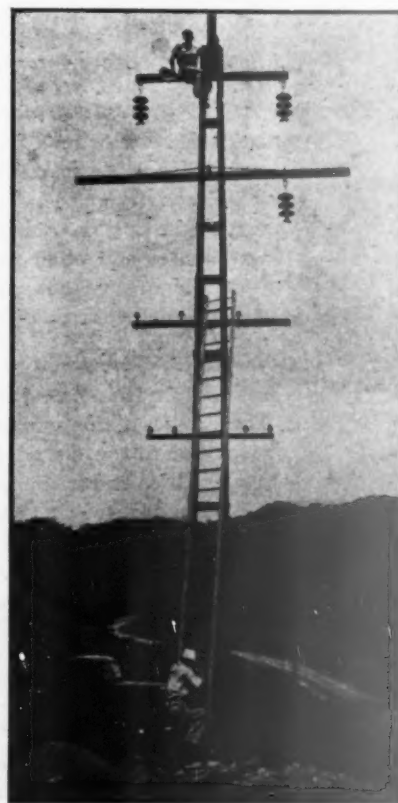
The project is the fourth development on the Virilla River and is located 25 miles east of San José. Five miles above the new site is a 3,000-kw. project, three miles higher is a 4,000-kw. plant, and a third development three miles higher up stream produces 3,000-kw. power.

Begun in 1941, the latest and largest project involves the construction of a dam (upper left), a 240-ft. intake flume to an 8,700-ft. tunnel, a surge-tank, two five-foot penstocks 800 ft. long, and a powerhouse for four generators and turbines (map, upper right).

The eight-foot tunnel (lower left) was cut through solid rock in 16 months by 180 native workmen. Within six months, it will be lined with concrete and ready for use.

Turbines and generators for 5,000-kw. output have arrived from the U. S.

and are now being installed, but additional equipment may have to await the end of the war. Cement and steel came from the U. S.; but material shortages resulted in such oddities as the high-voltage poles (lower right) being built from old railroad rails.





SUDDEN ORDERS to transfer an entire division of troops had reached a Midwestern Army camp. The movement was to begin within three days, on a schedule that meant loading of men and equipment at all hours of the day and night.

TO FACILITATE NIGHT LOADING at the railroad sidings, additional floodlighting was needed. A phone call to GRAYBAR by the transportation officer asked for immediate delivery of the floodlights, along with poles, pole anchors, guy wire, and the like.

WITHOUT WAITING for written confirmation, GRAYBAR started action to round up the equipment. Poles were rushed from the nearest stock point by truck, though it meant getting special permits from two State Highway Departments. Other equipment was supplied from warehouses and other nearby sources. All arrived in time to light the loading area when the "zero hour" for troop movement came.

WAR PLANTS, as well as the military services, get fast action from GRAYBAR when sudden requirements arise. This applies not only to lighting and other plant equipment but to the electrical materials being built into planes, ships and ordnance equipment. Are you taking full advantage of GRAYBAR'S Procurement Advisors?

GraybaR

MOBILIZATION POINTS IN OVER 80 CITIES

Executive Offices: GRAYBAR BUILDING, NEW YORK, N.Y.

Bringing together more than 200 manufacturers . . . 20,000 customers



Start with

* AND U.S. PAT. OFF.

Everything

Electrical

. . . THAT IT

TAKES TO WIN!

constructed in increasing numbers and adding greatly to the manufacture of steel."

• **Drain on Manpower**—Thus the fighting of a modern war without sufficient industrial capacity is forcing Japan to revert to outworn techniques, to furnaces producing from one to five tons of iron a day. One modern blast furnace in Youngstown can produce several hundred of these primitive units. In addition, such enterprises, although they save ship space, are a further drain on Japanese manpower, already in short supply (BW—Jun. 26 '43, p. 88).

These key factors in the economy are not yet in a serious deficit position. Nor may they be expected to pull the Japanese war machine to a halt by themselves. Perhaps not until Allied planes fulfill President Roosevelt's promise to bomb Japan proper from the east, west, north, and south will Japan be in a serious spot, and even then, the tenacious hold on outlying territories will not be easily broken by force.

• **Chance of a Breakup**—But just as the European war may wind up in a chaotic jumble of broken partnerships and allegiances, so Japan—always a quick loser and a faster compromiser—may not have a showdown of steel and fire. A world war which has unleashed the productive forces of the United Nations in the battle against Fascism may yet end in an anticlimactic trading match between diplomats and politicians.

Cement for Chile

Delivery of two Jersey plants will step up production at El Melon by 30%. New plant to add 110,000 tons capacity.

SANTIAGO—Improvement in the shipping situation has convinced Chileans that deliveries of used machinery from the U. S. soon will be speeded up.

For the expansion of Chile's cement industry, more than 1,000 tons of U. S. equipment has arrived, and another 3,000 tons is expected this year. The cement industry is the first of several Chilean industries due to benefit from sales of used U. S. equipment (BW—Oct. 3 '42, p. 84).

• **Two Plants Bought**—In October, 1941, the Corporacion de Fomento de la Produccion, a joint government-business agency, purchased two portland cement plants in New Jersey. When the equipment is installed, the only existing plant in Chile, the El Melon factory, will be able to step up its present production of 420,000 tons by 130,000 tons. In addition, a new company, Juan Soldado Cement Co., will be built to produce 110,000 tons.

The idle plants, one built in 1902,



"Me Change the Baby?"

If the baby's mother can learn to rivet steel pants on a bomber, then old Uncle Gamaliel can change his bachelor ways and learn to pin square pants on the baby... or even read the comics to four-year-old Junior.

Change, you see, is the order of the day.

And if you, like Uncle Gamaliel, have thought that "the comics" were undignified—no place to present a sales-winning story about advertised products—just make a poll of our millions of fighting men. Most of these men come from homes where the entire family finds in "the comics" their Gilbert and Sullivan—their Joseph Conrad—their Stephen Leacock.

The characters in Puck-The Comic Weekly are their friends, their intimates, their entertainers. These men and their home folks find the life of "Blondie" a hilarious mirror. "Tillie the Toiler", with an eye for smartness in dress, has set many a style. "Believe-it-or-not" Ripley presents strange instructive facts about the world we live in. Skippy is as dignified as Mark Twain's Tom Sawyer and Huckleberry Finn—Puck is vivid, colorful, exciting.

Puck-The Comic Weekly is primarily an entertainment medium designed to do a MAJOR advertising job. For example:

1. Over 80% of all adults read the Comics. Three national weeklies deliver 293 adult readers per dollar invested in half-

page or larger space, but Puck-The Comic Weekly delivers 717 adult readers per dollar invested in an average advertisement.

2. Visibility and readership are tops because Puck accepts only a limited number of advertisements per issue. Space in Puck is a valuable franchise.

3. A leading national advertiser whose market is masculine, ran two test advertisements in Puck and in the four leading weekly magazines. Puck pulled more coupons than these four weekly magazines combined! In the last three years this advertiser has run at least one color advertisement every month in Puck.

Distributed to more than 6,250,000 families through 15 great Sunday newspapers from coast to coast, Puck-The Comic Weekly is read by over 20,000,000 people—men, women and children—and blankets the great industrial areas, the most prosperous markets in the U.S.A.

To gain a real understanding of Puck's essential power and dignity, top executives—president, sales manager, and advertising manager, together with key men in the advertising agency—should see and carefully consider Puck's analysis of "Your Customers of Tomorrow." Puck-The Comic Weekly, 959 Eighth Avenue, New York—Hearst Building, Chicago.



Arrests Sparks and Flame, Shackles Explosions

You don't need dynamite and a detonator to get up a first-rate explosion!

Just take some dust-laden air, or air mixed with certain gases, vapors or mists (which may be handy in or around your plant) and touch a spark to them. The result will probably astonish you.

Maybe you can't eliminate certain explosive hazards, but you can choke off the sparks that set them off, with Air-Maze spark arresters.

We are making devices for that purpose now. We can engineer special ones if needed. But one way or the other you can end the unnecessary danger of potential explosions.

Air-Maze intake and tank vent flame arresters get results with many layers of scientifically crimped wire. Air-Maze exhaust spark arresters dissipate heat rapidly, effectively "killing" dangerous sparks.

Complete details on Air-Maze spark and flame arresters are available. Tell us your problems.

Maybe You'll Find An Idea In Typical AIR-MAZE Uses

WAR PLANTS, PLANES, SHIPS—cleaning engine intake air

RADIOS, TELEPHONES—keeping delicate equipment dust-free

SHIP GALLEYS—trapping grease and dirt

PRECISION PRODUCTION—removing dust and other unwanted particles

PHOTOGRAPHY—improving camera and processing results



**AIR-MAZE
SPARK ARRESTER**
One of over 3,000
types of Air-Maze
units.

AIR-MAZE CORPORATION • CLEVELAND, OHIO

AIR-MAZE

SPECIALISTS IN AIR FILTRATION

the other during the World War, were formerly the property of the Edison Portland Cement Co. Subsequent to purchase by the corporation, part of the machinery was returned to U.S. war agencies for more important uses. The machinery is valued at \$775,000; dismantling and transportation will run the cost up to \$1,125,000.

• **Demand to Grow**—The El Melon cement plant has satisfied most of Chile's needs, but development programs of the corporation envisage local demands for cement up to 586,000 tons by 1945, 880,000 tons by 1950. The corporation's plants will be located in the North, center, and South of Chile. The El Melon and Juan Soldado plants, at La Calera on the Santiago-Valparaiso railway and at Coquimbo 200 miles north of Valparaiso, will fulfill the needs of the northern region.

In addition to expanding El Melon's production of cement and building the Juan Soldado plant, the Corporation expects to exploit limestone deposits at Polpaico and El Volcan near Santiago. Later, another plant will be erected in the South at Lirquen, a coal-producing locality.

• **Vast Reconstruction**—Cement has been rationed in Chile since March, 1941. Reconstruction work in the Concepcion-Chillan region, devastated by the 1939 earthquake, has made heavy demands on domestic production. In 1940, imports (chiefly from the United States) totaled 34,000 tons. Chile hopes that expansion of cement producing facilities eventually may permit recapture of prewar export markets, primarily in Peru.

CANADA

Aid for the Allies

Dominion embarks on its billion-dollar program of mutual help for United Nations; many types of goods go to Russia.

OTTAWA—Big orders are now at hand, and contracts are being negotiated with Canadian producers for goods to be delivered to others of the United Nations under Canada's \$1,000,000,000 mutual aid program.

• **Many Items for Russia**—Official secrecy prevents description of these orders, but among them are large quantities of flour for Russia (BW—Jul. 3'43, p58) and important orders for mechanical transport, machinery, and machine tools for the Soviets, China, and other countries including Empire members. Many items will be the same as those



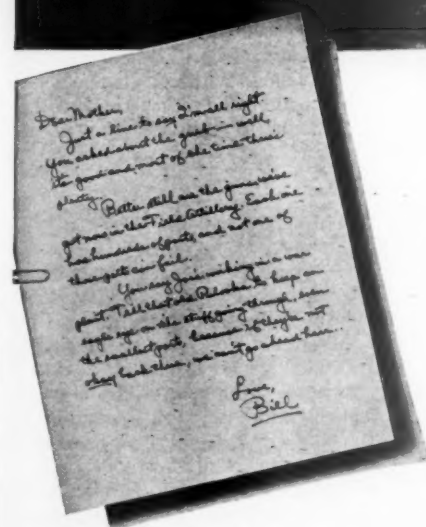
WAS THE 72nd YOUR BABY?

THE SMALL metal parts many of us are working on today may be in Tunis next month. If they don't do their job, boys like Bill may never cross the ocean again.

Parts like EMPIRE bolts and nuts, for example. Shipped by carloads, each one must fit, tighten easily, stand up under fire. They must move fast—or war equipment will move slowly.

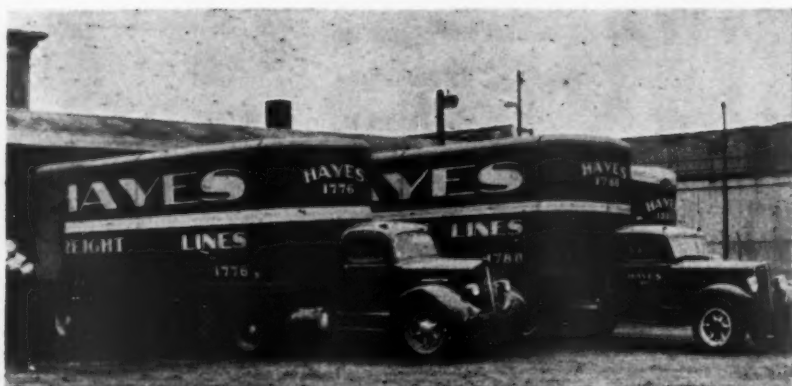
Here, at R B & W, machines of our own design are improving the strength of metal, cold-reducing Empire bolts, cold-forging the threads, cold-punching Empire nuts, repunching to insure perfect fit. To this inventiveness, we're adding *personal care* to make quite sure no weapon fails or waits because of us.

★ If you, too, are making vital "bits and parts", we'll send you posters made up from this ad—omitting any reference to us. They're free. Just write Russell, Burdsall & Ward Bolt and Nut Company, Port Chester, N. Y.



RB&W *Making strong the things that make America strong*





-- and in post-war competition
we will count on LS Trailer Bodies
-- for less time out for repairs
-- more "pay service" hours

COMBAT BODIES



Body builders now providing mobile workshops, command posts, and many other types of combat bodies for the armed forces...

TRUCK BODIES



... can quickly change over to the manufacture of delivery trucks and trailers of all types. No new tools required—no special experience.

A freight trailer makes money when it keeps going—there is no profit in days or weeks lost for repairs.

In Mattoon, Illinois, Hayes Freight Lines have found a way to cut down the doubly costly hours spent for trailer body repairs. H. G. Bowen, purchasing agent for Hayes, reports that "Lindsay Structure saves as much as a week in repairing front end or side panel cave-ins. Due to the simple assembly of the structure, new panel sections are quickly put into place and the truck or trailer body, with a new paint job, is back on the road in a couple of days."

And so another leading motor freight company will have another distinct advantage in meeting post-war competition: LS Trucks and Trailers for more "pay service" hours.

Lindsay Structure offers new efficiency in a wide variety of light sheet metal applications. It will pay you to have complete information in your "Post-War Plans" file. Lindsay and Lindsay, 222 W. Adams Street, Chicago 6, Ill.; or 60 E. 42nd Street, New York 17, N. Y.

BUY WAR BONDS

LINDSAY



STRUCTURE

U. S. Patents 2017629, 2263510, 2263511
U.S. and Foreign Patents and Patents Pending
For details, see Sweet's Catalog File

LINDSAY STRUCTURE CAN SAVE THOUSANDS OF TONS OF STEEL PER MONTH

which will be required for European relief and rehabilitation—newsprint, medical supplies, etc.

The United Nations that are to benefit are advising Ottawa on needed supplies, and the mutual aid administration is determining to what extent these needs can be filled without seriously depleting necessary stockpiles and civilian stores.

● **Postwar Rationing**—Officials believe that mutual aid and the requirements of relief and rehabilitation—soon to be centralized in a United Nations Relief & Rehabilitation Administration (BW, Jul. 24 '43, p. 42)—will mean capacity production in nearly all branches of Canadian industry and agriculture from now on. Shortages of consumer goods for home consumption, and therefore continuation of rationing, are predicted for a long period after fighting stops in Europe.

CURB ON ADVERTISING?

Canada's Rubber Controller has decreed that synthetic rubber products must not be advertised in any way by rubber companies, dealers, or anybody else. Ostensibly intended to curtail consumer interest in synthetic rubber products, the move is probably aimed at advertising of postwar products as a tax dodge.

Under the Ottawa order, advertising includes space in newspapers, magazines, billboards, and window displays. The synthetic rubber product must not be alluded to even in advertising referring to the need for conserving tires and other rubber goods.

Actually there is little incentive to advertising synthetic tires even if it were permitted because those that are now coming into use on high-priority vehicles carry no maker's name or trademark.

POLITICAL PREVIEW

Ontario's provincial general election is regarded by Canadian politicians and business leaders as an advance test of the strength of socialist political forces for the federal election which is likely to come next year. Canada's Cooperative Commonwealth Federation is proposing socialist policies in bids for office in the provincial and federal fields.

C.C.F. promises to nationalize banks, public utilities, communications, and other branches of business, and to exercise state control of some businesses that are not to be nationalized. Some commercial interests have been cooperating with the old-line political parties in organizing against the C.C.F. drive.

C.C.F. successes in provincial elections would be considered significant mainly as signaling the probable election of a socialist government for the Dominion next year.

War Materiel
GOES INTO
ACTION FASTER



...when Protected in Shipment by International Silica Gel

When American fighters go into action, their supplies are ready for instant action, too. The speed of modern warfare required a new method of protecting materiel from corrosion in shipment, a method that permits immediate use upon arrival at distant bases. Chemistry found the solution in Silica Gel, a dehydrating agent specified by the Army and Navy for certain materiel and now manufactured by International. War materiel is packaged in a moisture-barrier with bags of Silica Gel sealed inside. The Silica Gel adsorbs moisture in the air and

prevents rust. It saves time in packaging because greasing is eliminated; saves time at the scene of action because materiel arrives clean, ready for use. In other ways, too, International is serving the armed forces. *Magnesium* for airplanes. *Potassium Chlorate* for small arms ammunition. *Mono Sodium Glutamate* for Field Ration K. And International *Potash, Phosphate* and *Fertilizers* are helping grow the food that makes ours the best fed army in the world. *International Minerals & Chemical Corporation. General Offices: 20 North Wacker Drive, Chicago.*

International **MINERALS AND CHEMICALS**

Mining and Manufacturing

PHOSPHATE • POTASH • FERTILIZER • CHEMICALS

Business Week • August 7, 1943



John Shrant, Climax Molybdenum's personnel man, interviews a medically discharged soldier seeking work in the company's high-altitude (11,-

300-ft.) Colorado diggings. The firm's top priority on hard-rock miners being released from the Army is its real hope for relief from manpower pressure.

LABOR

John L. Reneges

Lewis won't go back into American Federation of Labor, and excuse of jurisdictional trouble seems inadequate.

It has been confidently predicted that the big piece of business before next week's semiannual meeting of the American Federation of Labor's all-powerful executive council would be favorable action on the application of John L. Lewis to reaffiliate his United Mine Workers union. Now, according to members of A.F.L.'s council, that just isn't going to come off.

• **In Need of Help**—The basis for predicting that Lewis would return to the Federation fold had been sound. He had stood alone in the coal crisis and found the going very, very tough. Other labor leaders, for their own protection and prestige, had to join in sniping at him.

He seemed to have gone as far as it was possible to go outside of one of the two big labor movements. He showed unmistakable signs of political ambitions which could be most handily furthered by rejoining the A.F.L. When William Hutcheson of the carpenters

presented the Lewis application to the A.F.L. executive council, he said that any jurisdictional issues outstanding could be disposed of in five minutes of talk. Everyone knew "Hutch" spoke for Lewis.

• **Lewis Is Adamant**—But, when three sympathetic A.F.L. conferees met last week with Lewis and his aides, they found themselves face to face with a stone wall. The jurisdictional issues, which were supposed to dissolve, became subjects for extended Lewis oratory. He demanded that the Federation take the U.M.W., just as it is, without any questions about its sprawling District 50, which, on paper at least, competes with almost a dozen A.F.L. organizations.

Efforts to discuss the matter proved fruitless. Lewis, adamantly, said: "That's the proposition. Say yes or no."

To a suggestion that a further meeting be held, Lewis coldly replied, "We've said everything we have to say."

• **Everyone Mystified**—Bewildered, angry, and genuinely disappointed, the Federation's committee can only recommend to the council that the Lewis application be turned down. None of the three members of the committee, or any of the few union officials who have heard the full story of what went on in the meeting, pretend to have an explanation for what happened to Lewis and his plans.

Furlough to Mines

Army to release 4,500 men to copper, moly, and zinc pits. This time WMC wants to make certain they'll stick.

Representatives of more than 100 nonferrous metal mining companies will converge Aug. 12 on Fort Douglas, Utah, to begin hiring 4,500 soldiers for work in copper, molybdenum, and zinc pits. This will be the second time nonferrous producers have had the Army funnel manpower into a barrel that has been scraped clean. That the Army has been induced to repeat, testifies not to the success of the experiment but to the truly desperate labor supply situation in the nonferrous mines and to the critical importance of the industry's output in the war production program.

• **Last Attempt a Fiasco**—In many ways last winter's attempt to convert soldiers into metal miners was a fiasco. Nevertheless, the industry's manpower needs are so acute that the Army simply must be used again, and the War Manpower Commission, which will handle the operation, hopes to be able to profit from experience and make the new transfer really count.

Last time, after a long discussion, the War Production Board got the Army to shift 4,200 men to the enlisted reserve and release them for work in nonferrous mines. Quotas were assigned to commanding officers of camps west of the Mississippi, and they were directed to assemble the men at Salt Lake City.

• **Exodus from Guardhouse**—It is no secret that most commanders, first considering the orders a nuisance, decided upon reflection that here was a fine opportunity to clean out the guardhouse. Misfits and problem soldiers were urged to apply for the demobilization and in only a few instances were real efforts made to find hard-rock miners or men with closely related experience among the soldiers. Employers, not wanting to push their luck too far and grateful for any specimen who looked reasonably able-bodied, made no serious complaints about the quality of manpower the Army was offering. They took all without question.

The most dramatic example of how badly the thing was planned was offered by Anaconda, which hungrily grabbed 50 Negroes for jobs in Butte. When the Negroes reported for work, 8,000 Anaconda employees walked out. The union, the mine foremen, and the employees had not been notified and prepared for the arrival of the Negroes. To end the strike, the Negroes were sent to mines in the Southwest.

• **Largely Inexperienced**—In other companies, although no labor disturbances

OF COURSE YOU'LL BE USING MAGNESIUM

Perhaps,
here's
that help
you need



American Magnesium's Jobbing Division is set up to serve as consultants on fabricating problems. If you are finding it difficult to get your production of magnesium products under way, it is quite possible that we may be able to help you.

Fabricating is the Job Shop's specialty. The men here understand the manufacturing possibilities of Mazlo Magnesium Alloys. They are expert at forming and joining magnesium assemblies. What they have learned here may well enable them to solve the very problems that are bothering you.

Sketched above, you see magnesium oil

tanks for aircraft being assembled by American Magnesium. Such Mazlo Magnesium products contribute the light weight and reliability so necessary in airplane construction. The Jobbing Division has the know-how which speeds this production, getting magnesium products to assembly lines on time.

If you have some problem on which this magnesium fabricating experience will serve as a guide, we'll gladly talk with you about it. Write for the booklet, "Properties of Magnesium Products." American Magnesium Corporation, 1711 Gulf Building, Pittsburgh, Pa.

MAGNESIUM



PRODUCTS

AMERICAN MAGNESIUM
CORPORATION

SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

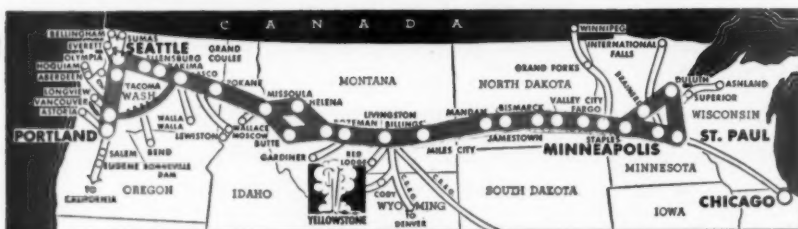
"Veterans" of the Gallic wars...



help the Allies win World War II...



as 54 billion beans roll to war...



over the Main Street of the Northwest!

The legions of Caesar, the hosts of Hannibal, like every army before and since, often marched on beans. Today these "veterans" are fighting again... helping supply valuable protein and food energy to our armed forces, civilians and allies.

Among the world's favorites are the plump, tender beans grown in the Northwest, in Washington, Oregon, Idaho, Montana and Minnesota. From these

states, Northern Pacific Railway last year helped move over 30,000,000 pounds... 54 billion beans.

Again this year, as meat-rationing continues, and as war demands for beans increase, this plentiful meat-substitute will be even more conspicuous in the parade of vital war supplies moving along the tracks of the Northern Pacific — Main Street of the Northwest!

NORTHERN PACIFIC

MAIN STREET OF THE NORTHWEST

were touched off, the arrival of the former soldiers created serious problems. Some of them turned out to be workmen, unwilling to apply themselves and learn their new jobs. A substantial number of them drifted from mine to mine in search of easier jobs.

Although they were in the enlisted reserve, and the Army kept a string on them with a requirement that they report at 90-day intervals to the nearest Army camp, hundreds of the former soldiers quietly moved out of the country to less arduous, higher-paying jobs in West Coast shipyards and aircraft plants. Many of these have since been located and pulled back into the Army. More than a thousand others, after anywhere from two weeks to months in the mines, demanded to be returned to the Army. Some—the number is a secret—simply went "over the hill" and are classified as deserters.

• **Sixty Percent Stuck-Up**—Up to 40% of the first group provided by the Army have to be classified as a dead loss. Of the group that stuck, however, employers report that there are many men who have been shining examples in earnestness, high morale, willingness to work and regular attendance. These, for the most part, are men who had some mining experience before they went into the Army. On this fact WMC is pinning its hope that this month's transfer will pan out better than the first.

Commanding officers this time have been instructed to ask for volunteers only after first explaining in detail the qualifications and the nature of the job. They will send to Fort Douglas more than the 4,500 who will ultimately be released. At Douglas, experienced interviewers of the United States Employment Service will screen the group, classifying men who lack proper vocational experience or who for one reason or another look as though they won't measure up.

• **Priority List Established**—The group that will be left, still over the needed 4,500, will be interviewed by employment managers of the nonferrous companies, and weeded out further or hired on the spot. A priority list has been prepared on the basis of the productivity of each company's mines, so that the best of the new hands will be placed where they will do the most good. This is expected to bring a scream from the smaller mines, long on ambition but short on production.

Not all copper, molybdenum, and zinc producers will get soldiers. The Army will release only enough to start the hundred-odd most productive districts where acute manpower deficiencies are holding up output. Furloughed soldiers will be assigned only to underground mines, not to open-pit operations in the Southwest where Mexican mines of equal productivity, the ones

LET'S KEEP IT HATCHING!

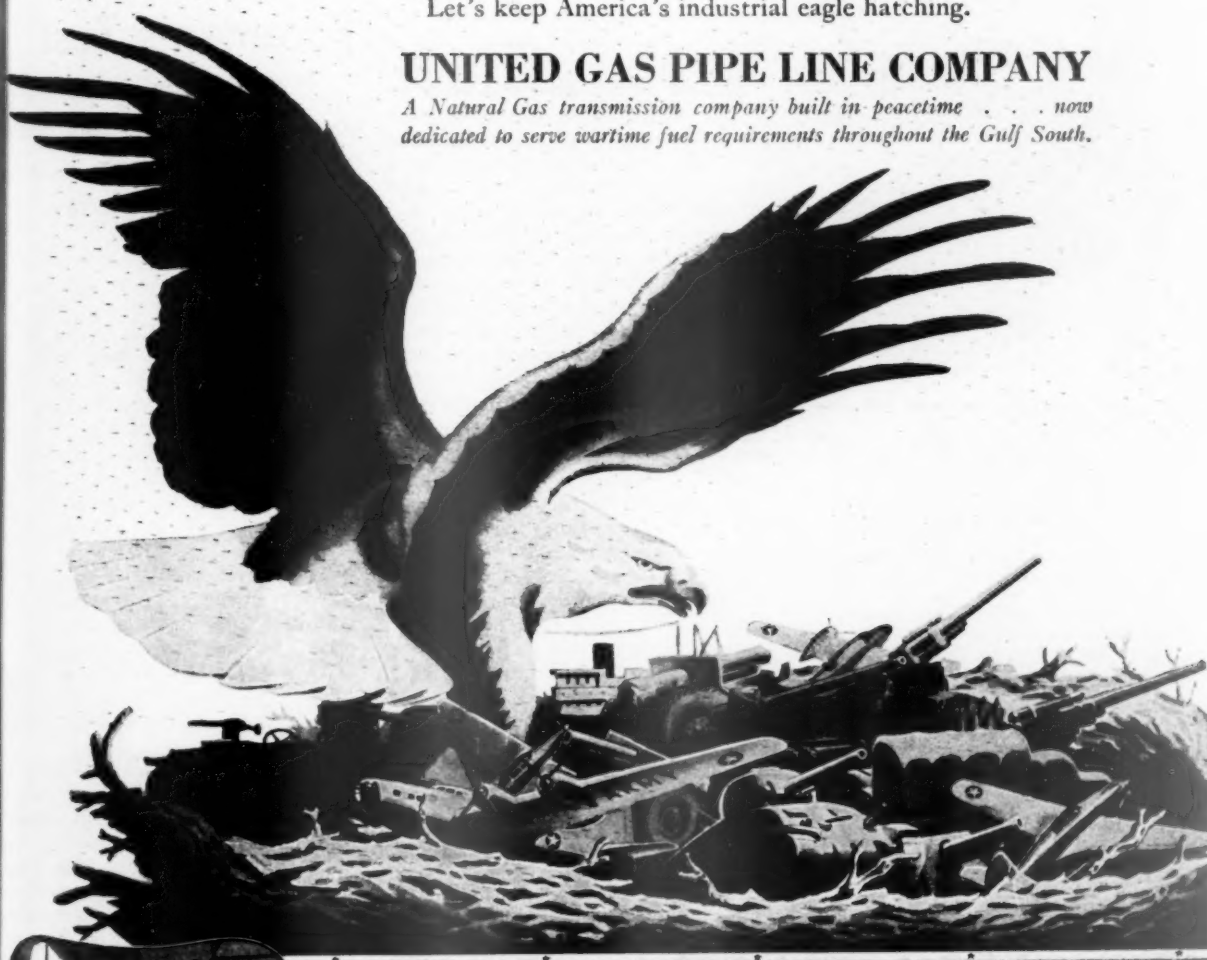
• America's industrial eagle is hatching the weapons for Victory in the Gulf South and throughout America. We must all keep working with might and main to fill the Eagle's Nest to overflowing.

The Gulf South is playing its part. Its people are working harder—making greater sacrifices. Its rich natural resources are pouring out of the earth into Gulf South war plants. Its factories are working day and night converting its resources into war materiel that means quicker Victory for our fighting men.

Let's keep America's industrial eagle hatching.

UNITED GAS PIPE LINE COMPANY

A Natural Gas transmission company built in peacetime . . . now dedicated to serve wartime fuel requirements throughout the Gulf South.



The Gulf South

Working with ALL AMERICA for VICTORY

For TEXAS, Mail received at: Beaumont, Dallas, Fort Worth, Houston, Longview, San Antonio and Wichita Falls. For LOUISIANA, Mail received at: Baton Rouge, Lake Charles, Monroe, New Orleans and Shreveport. For MISSISSIPPI, ALABAMA and FLORIDA, Mail received at: Jackson, Mississippi.

©PR. 1943. UNITED GAS PIPE LINE CO.

CONSERVATION is DeLuxe's Field

LITTLE ONES
OR BIG ONES
THEY ALL NEED
DELUXE
OIL CLEANSING



Oil Cleansing by the DeLuxe method goes beyond mere straining or filtering of oil. DeLuxe Oil Cleansing re-

moves the asphaltenes and other contaminants *before* (not after) they form into sludge, engine varnish and other harmful substances. Responsible for this Oil Cleansing are eight construction features, all of which are found only in the DeLuxe Filter. It is this construction which makes possible the lower oil costs, reduction in engine wear and repair and greater engine efficiency effected by DeLuxe Oil Filters. For complete details write for FREE BOOKLET...
FILTER FACTS.
DeLuxe Products Corp.,
1425 Lake Street,
La Porte, Indiana.

LET'S SEND FOR
"FILTER FACTS"
DELUXE'S FREE BOOKLET
ON OIL AND ENGINE
CONSERVATION!

DELUXE
FILTERS
and PISTONS

Also, manufacturers of Cast Iron Pistons of special lightweight design; standard equipment with over forty manufacturers.

that can provide the best working and living conditions for the soldiers will get the nod.

• **Union Officials on Hand**—WMC is working on the theory that the best way to have the new crop stick and pull its own weight is to be sure that the civilian life they return to is at least as attractive as Army life. And lest the soldiers have any illusions about life and work in a copper camp, WMC is bringing A.F.L. and C. I.O. officials from the mines to Fort Douglas to answer any questions the soldiers may have about the prospect they face.

Although the new group goes into the enlisted reserve, there is no 90-day reporting routine involved. When an ex-soldier quits or proves unsatisfactory, the employer is bound to notify the local WMC office, which in turn notifies Selective Service. If the program meshes on schedule, an ex-soldier will find himself back in uniform three days after he has stopped being a metal miner.

• **Turnover Still High**—As in other extractive industries, the nonferrous manpower problem is not, primarily, getting more men, but holding on to those it has. Selective Service is no longer inducting experienced miners, but the turnover rate in the western mines—in spite of a rigid job freeze—is still running at almost 10% a month. This means that in ten months an employer has to hire the equivalent of a full new work force. The new drive isn't expected to do more than permit the mines to hold their own through the summer and help them offset the effect of the loss of miners who mine in the winter and farm in the summer.

One big copper mine reported 152 hires, 151 quits in June, and that experience is not unique. Another firm sent a personnel man to Lead, S. D., to do some missionary work among idle gold miners. After eight days, he returned with one miner. Kennecott, refusing certificates of availability to its employees who wanted to leave its mines, found 165 of them ganging up to drop their union membership and get fired under the company's maintenance-of-membership contract with the C.I.O. (BW—Jul. 24'43,p94). A few operators of small closed gold mines have taken jobs as nonferrous miners.

• **Watched by USES**—Actually, with nonferrous experience sought in every job applicant at USES offices all over the country, there isn't much opportunity for a metal miner to move out of the industry unless he gets a new job through a black market in labor. If an ex-Climax Molybdenum employee turns up for a job in Philadelphia shipyard or San Diego aircraft plant, before USES will let him be hired it gets an explanation from Climax as to why the applicant isn't digging moly. If he's what the employment service people now call a

fugitive, he's shipped back to the mine to maintain. And if he has tried to conceal his work experience in the industry, USES will have found him out by getting his employment record from the Social Security Board.

The turnover rate is therefore not the result of the departure of men from the industry. It is almost purely turnover, the sense that men drift from one mine to another and from one company to another in the spirit of the old prospectors of the West. No one in the industry ever bothered much about this ancient tradition in the palmy days of labor surpluses, but now it is proving to be wasteful, costly habit. As soon as the manpower commission gets the new batch of soldiers safely underground, it will address itself to the problem of changing the migratory habits of the miners.

Foremen's Test

Association, whose drive to organize supervisors has hit a new low, seeks vote for strike in NLRB ballot at Murray.

The drive to unionize foremen (it gradually quieting down, but it is still far from a solved problem) drew near another milestone this week. It will come in the form of a strike ballot to be conducted by the National Labor Relations Board at the Murray Corp., Detroit builder of aircraft parts. The vote will result from a notice of intent to strike which has been filed by the Foreman's Assn. of America under the terms of the Connally-Smith War Labor Disputes Act.

• **Early Drive Impressive**—Last winter activities of the F.A.A. made hot news, gave more than one industrialist nightmares. Organization of supervisors, under young and presentable Robert H. Keys, appeared to be the most sweeping development on the employee relations front.

F.A.A. had organized the Ford Rouge plant in September, 1941 and, over the ensuing year and a half, had picked up converts in more than a score of Michigan plants. In April of this year, it claimed more than 15,000 members—but, except for a narrowly restricted contract with Ford, it didn't have any written collective bargaining agreements (BW—Apr.17'43,p102).

• **NLRB Action Dropped**—At Ford's the group had begun proceeding against the company before NLRB, then had withdrawn its petition in November, 1942, when an agreement was signed which fixed a schedule of salaries and hourly rates of pay for foremen. Beyond that point, however, the foremen's drive seemed to turn sticky. Even

though an election at Packard was won by 486 to 2, another election was ordered by NLRB at Murray, and chapters sprung up in other middle western towns, few concrete results could be shown.

Management throughout the Detroit area took the position that the foreman was a part of management itself and could not be recognized as a union member. The whole problem of F.A.A.'s legal right to recognition came to issue in the Maryland Drydock Co. case before NLRB last May. Although the F.A.A. was not itself a party (the company's foremen were represented by C.I.O.'s Industrial Union of Marine & Shipbuilding Workers), the question before the board boiled down to, "Are unions of supervisory employees entitled to the protection and benefits of the Wagner Act?"

• **Twice Rebuffed**—To this, NLRB in a split decision answered "No" (BW-May 15 '43, p. 8), and the organization drive recoiled. Just last week, NLRB answered the same question again the same way, this time in a case involving General Motors Corp.

Until the time of the Maryland Drydock ruling, the Foreman's Assn. had plugged consistently on the theme that the supervisor was a good guy, that he needed recognition in group form, and that he definitely took no sides as between management and labor. Keys, in the pre-NLRB decision days, was quoted as saying, "We do not speak for management, we do not speak for labor. We will not take sides against either."

• **Big Unions Cool**—Since the NLRB turn-down, however, the foremen group has been asking for support from mass-production unions. A conference was held with top C.I.O. officials; other feelers went out to the A.F.L. But the production unions felt that, at this point, the foremen would be more trouble than they were worth.

F.A.A.'s latest dramatic organizing move came on July 10 when its members in one of the Murray Corp. plants failed to report for work. The association was after a signed contract with the company. Leaflets distributed to C.I.O. production workers inside the plant said, "Whatever we gain will be your gain. We know you won't let us down, and pledge that we will not let you down in disputes which you may have in the future."

But the production unionists ignored the implicit suggestion that they strike in sympathy. The plant continued to operate, its production curtailed but not to an alarming degree. Sporadic picketing went on for a few days; then the foremen returned to work.

• **Strike Approval Sought**—Shortly thereafter, the F.A.A. turned to the new labor law for help, registered an intent to strike with NLRB, and is now campaigning for a strike vote.

Battling flames on the briny deep calls for a deep- drawn cylinder

Shown below is one of the many products built by Hackney for the war effort. This cylinder, cold-drawn to specifications by the Hackney process, is made of high-strength alloy steel.



A terror to men at sea—fire is now being controlled in many instances by the liberation of inert gases from steel cylinders where it is stored. The cylinders, in common with many other war products, are deep-drawn by the Hackney process. Light weight and uniform sidewall thickness are assured by cold-drawing while ample strength is provided by electrically controlled heat-treating.

Under the trade name "Hackney," Pressed Steel Tank Company has specialized in the making of seam-

less cold-drawn shapes and shells for more than 40 years. The Hackney Deep-Drawn Process has in many cases made it possible to save on scarce materials, as cold-drawing permits close control of metal thickness.

Hackney engineers have had much valuable experience in working with numerous concerns in many different war industries. It may be that your product can use the time- and material-saving advantages of the Hackney Deep-Drawn Process. Hackney is ready to help you. Write today for full details.



Pressed Steel Tank Company

MANUFACTURERS OF HACKNEY PRODUCTS
General Offices and Factory • 1493 SOUTH 66th STREET
Milwaukee, Wisconsin

DEEP-DRAWN
SHAPES AND SHELLS



Landing Fields in a Hurry



with the help of KEYSTONE Wire

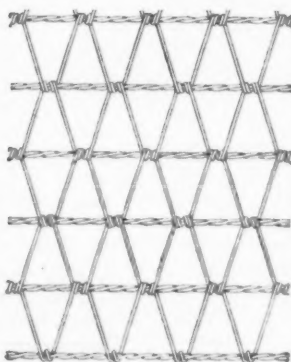
Many advance bases near our fighting fronts are equipped with spot airplane runways in a hurry. Rolls of ready woven and reinforced fabric are quickly unrolled and anchored down. In a mere matter of hours satisfactory landing fields are thus created.

Here is a combat advantage wherein wire mill production plays a major hand. Keystone is supplying many miles of wire fabric for this use—as well as thousands of items to help equip planes, tanks, ships, and guns. Each day of this production brings us that much nearer Victory—when wire and wire mill products will again be rolling... to meet a pent up *civilian* demand.

**KEYSTONE
STEEL & WIRE CO.**
PEORIA, ILLINOIS



One of thousands of wire mill products for war uses.



British "Tommies" laying chicken-mesh landing mat.

Getting up Steam

Labor-management groups in war plants revived under Quinn regime. His goal for 1943 is 5,000 active committees.

The job of Theodore K. Quinn, new director-general of the war production drive, is off to a fast start. He was brought to Washington by War Production Board Vice-Chairman Charles E. Wilson from the presidency of the Maxon advertising agency (BW-July '43, p. 7).

• **Infusing Plant Committees**—Quinn's assignment is to push the listless labor-management committees in the war plants into high gear. Launched with a blare of ballyhoo early last year, the committees have, for the most part, been stuck at dead center for the past six months. Management has been largely indifferent about the fate of the committees, and the unions have come to believe they were just so much window dressing. When Quinn stepped in, records showed that 2,000 plant committees had been established, but no



WOMAN'S WORK

Only woman in a group of five RCA Victor plant contest winners who were honor guests at a ship christening. Mrs. Lena Rettberg (center), Harrison, N. J., swung a champagne bottle against the bow of the tanker Rosebud in a ceremony at Mobile, Ala., presided over by David R. Dunlap (right), president of the Alabama Dry Dock & Shipbuilding Co. Grand prize winner Robert W. Young, 26-year-old radio expert of the Camden (N. J.) RCA Victor plant, bowed to the maritime superstition that ships not launched by women are ill-fated.

PACKAGED NEWS

Army Air Force crews servicing the Vengeance dive bomber abroad get their news from home in the same crate that brings them spare parts from the Nashville division of Consolidated Vultee Aircraft Corp. The parts must be individually wrapped anyhow, and an employee of the shipping department, on a tip from a nephew in the Air Forces, decided to use newspaper.

The Office of Censorship approved. Now, with every shipment of replacement parts, the ground crews receive an assorted selection of the New York Times, the Louisville Courier-Journal, the Nashville Tennessean, the Nashville Banner, and any others the employees care to contribute.

one was sure he was taking over a going concern.

After not much more than a month of the Quinn regime, the number of committees has risen to 2,245, and, what is more significant, many established committees which were considered defunct are re-nascent. Quinn's goal is 5,000 functioning committees by the end of 1943.

• **Weekly Paper Born**—To make that grade, war production drive headquarters has been streamlined and repowered. Headquarters snatched Herman Wolf from the Treasury, where he had been promoting the war bond selling campaign to labor and building up the tremendous payroll deduction bond buying program which now covers every major plant in the nation. Quinn assigned Wolf to the job of getting the unions behind the production drive, and got an appropriation for Wolf to publish a weekly paper.

The first issue, out last week, looks very much like the C.I.O. News. It is tabloid in size and semitabloid in its profuse illustration. The paper's debut on schedule illustrates Quinn's methods. When red tape at the Bureau of the Budget held up final clearance for the weekly Labor-Management News, Quinn told the printer that he would personally underwrite the first issue and guarantee expenses.

• **Select Circulation**—The Labor-Management News will be a clearing house for successful ideas from the field on pushing output. It will go, in bundles, to functioning committees, executives of war plants, and special concentration industries—currently steel—where special efforts are being made to meet raised quotas. After the steel drive, production raising drives are planned for aircraft, copper, coal, wood pulp, lumber.

The office ought to have a swing shift, too!



"WE'VE WORKED EVERY NIGHT this week and we're still swamped. I don't mind long hours as long as I'm helping the war effort. But at this rate we're going to suffer—and so is our work. We've got to find a way to speed up office work."



"AS A PRINTER, I've helped many customers lick such problems with the ideas in this Hammermill book. They'll help any one organize his job, do more in a day by putting things on paper. And for service, I recommend you put those ideas to work on Hammermill Bond."

What is your wartime problem?

- Shortage of help?
- Pressure of details.
- Need to organize your working day?
- "Junk heap" desk?

Whatever your office problem, Hammermill wants to help you. It offers you not only dependable paper, product of over 40 years' experience, but also practical ideas on how to use paper and printing to step up your personal efficiency, clear your desk and your mind for important jobs. You'll find some of those ideas in the little book below. It's a Hammermill service to help you multiply manpower. Send for it.



HAMMERMILL
Papers

"Recipe for an Orderly Desk," new little book by William Feather, business writer, shows how to organize your work, get information, pass it along, check results and responsibility. For your free copy, attach coupon to (or write request on) your company letterhead and mail it to Hammermill Paper Company, Erie, Pa. Dept. BW-6-7

Send for it!

Name _____

Position _____

HOW WMC CLASSIFIES CITIES

Labor Stringency Determines Their Rank

Every city in the country with a population of 25,000 or more is now classified by the War Manpower Commission in terms of its manpower supply. These classifications are reviewed each month, and at monthly intervals, WMC changes classifications in cases where it is evident that the labor market situation has altered. Thus, for example, in the August listing, the Dayton-Springfield (Ohio) area, which had been classified in Group I, is shifted to Group II. Over the last few months manpower in that community has become less tight, and a program for labor sharing and labor stabilization,

worked out jointly by industries and unions there, has been accepted by WMC as a guarantee that Dayton-Springfield can keep its head above water.

How a city is classified by WMC has become increasingly important to its business men. Procurement agencies are giving more and more weight to manpower considerations in letting and canceling contracts. Other things being reasonably equal, a plant located in a Group I city will be much less likely to get a new contract than a city listed in another group; and as between two firms in different towns holding contracts that

the government wants to scale down, the company in the tighter manpower area can expect to suffer first.

WMC now has 55 communities in Group I, defined as "areas of acute labor shortage"; 111 in Group II—"areas of labor stringency in which a labor shortage may be anticipated within six months"; 81 in Group III—"areas in which a general labor shortage may be anticipated after six months"; 88 in Group IV—"areas in which labor supply is, and will continue to be, adequate to meet all known labor requirements."

The classification of the areas is as follows:

Alabama I Anniston, Gadsden, Mobile II Florence, Huntsville, Talladega III Birmingham IV Montgomery, Tuscaloosa	Arizona II Phoenix, Tucson	Arkansas I Pine Bluff IV Fort Smith, Little Rock	California I Eureka, Los Angeles, San Diego, San Francisco Bay, Stockton II Bakersfield, Brawley, El Centro, Fresno, Modesto, Sacramento, San Bernardino - Riverside, San Jose, Santa Ana, Santa Barbara, Ventura-Oxnard All other areas in Group III III Colorado Springs, Denver, Pueblo	Colorado I Denver, Pueblo	Connecticut I Bridgeport, Hartford, New Britain, Bristol, Waterbury II Meriden, Middletown, New Haven, New London-Groton, Stamford III Norwalk, Norwich IV Danbury, Torrington	Delaware I Wilmington District of Columbia I Washington	Florida I Jacksonville, Panama City, Pensacola, Tampa IV Miami, Orlando, West Palm Beach	Georgia I Brunswick, Macon, Savannah II Atlanta, Augusta, Columbus III Rome	Idaho II Boise, Pocatello	Illinois I South Chicago, Sterling	Indiana II Anderson, Evansville, Gary-Hammond II Connersville, Fort Wayne, Indianapolis, Michigan City, La Porte, Muncie, Newcastle, Richmond, South Bend III Bloomington-Burns City, Kokomo, Lafayette, Logansport, Marion IV Terre Haute	Iowa II Clinton, Des Moines III Burlington, Cedar Rapids, Council Bluffs, Waterloo IV Dubuque, Mason City, Ottumwa, Sioux City	Kansas I Wichita II Parsons III Topeka IV Hutchinson	Kentucky II Louisville IV Lexington, Owensboro, Paducah	Louisiana II Lake Charles III New Orleans IV Alexandria, Baton Rouge, Monroe-Sterlington, Shreveport-Minden	Maine I Portland II Bath III Lewiston IV Bangor	Maryland I Baltimore, Elberton III Cumberland, Hagerstown	Massachusetts I New Bedford II Springfield-Holyoke-Norhampton	Michigan I Detroit, Muskegon II Adrian, Battle Creek, Benton Harbor, Flint, Monroe, Pontiac, Port Huron, Saginaw-Bay City III Grand Rapids, Jackson, Kalamazoo, Lansing III Duluth IV Minneapolis-St. Paul, Rochester	Minnesota I Duluth IV Minneapolis-St. Paul, Rochester	Mississippi I Pascagoula III Aberdeen, Meridian IV Jackson, Vicksburg	Missouri III Kansas City, St. Louis IV Joplin, Springfield, St. Joseph	Montana I Butte II Billings III Great Falls	Nebraska II Grand Island-Hastings III Lincoln, Omaha	Nevada I Las Vegas II Reno	New Hampshire II Claremont, Portsmouth III Nashua IV Concord, Manchester	New Jersey I Somerville, Trenton II Newark, Paterson, Perth Amboy III Long Branch, Morristown IV Atlantic City	New Mexico IV Albuquerque New York I Buffalo-Niagara Falls II Albany-Schenectady-Troy, Amsterdam-Gloversville, Geneva, Massena,	New York I Buffalo-Niagara Falls II Albany-Schenectady-Troy, Amsterdam-Gloversville, Geneva, Massena,	North Carolina III Asheville, Durham, Raleigh, Greensboro-Winston-Salem, Rocky Mount-Wilson North Dakota IV Fargo	Ohio I Akron II Canton-Massillon-Alliance, Cleveland, Columbus, Dayton-Springfield, Lima, Lorain-Elyria, Mansfield, Newark, Piqua-Sidney-Troy, Sandusky-Fremont-Port Clinton, Youngstown-Warren-Sharon III Cincinnati, Fostoria-Finlay-Tiffin, Hamilton-Middletown, Marion, Toledo IV Portsmouth, Steubenville, Zanesville	Oklahoma I Oklahoma City II Chateau, McAlester, Tulsa IV Enid, Muskogee	Oregon I Portland III Corvallis, Eugene	Pennsylvania I Chambersburg II Aliquippa, Allentown, Erie, Harrisburg, Johnstown, Lancaster, Lebanon, New Castle, Philadelphia, Pittsburgh, Reading - Pottstown, Washington III Berwick, Scranton, Williamsport, York IV Altoona	Rhode Island II Newport, Providence-Pawtucket - Woonsocket	South Carolina I Charleston II Spartanburg IV Columbia, Greenville	South Dakota III Sioux Falls	Tennessee III Knoxville IV Chattanooga, Kingsport-Bristol, Memphis, Nashville	Texas I Beaumont II Dallas, Fort Worth, Galveston, Houston, Texarkana III Amarillo, Brownsville, Corpus Christi, San Antonio IV Abilene, Austin, El Paso, Laredo, Lubbock, San Angelo, Tyler, Waco, Wichita Falls	Utah I Ogden, Salt Lake City II Provo	Vermont II Springfield IV Burlington	Virginia I Hampton Roads II Richmond-Petersburg IV Danville, Lynchburg, Roanoke	Washington I Everett, Seattle-Tacoma - Bremerton, Spokane, Vancouver II Longview-Kelso III Aberdeen-Hoquiam, Olympia, Yakima	West Virginia IV Charleston, Clarksburg-Fairmont-Morgantown, Huntington, Parkersburg, Point Pleasant, Wheeling	Wisconsin I Racine, Sturgeon Bay II Kenosha, Manitowish, Milwaukee, Beloit III Eau Claire, LaCrosse, Madison-Merriman, Sheboygan, Superior IV Appleton, Fond du Lac, Oshkosh, Wausau	Wyoming I Cheyenne Territory I Hawaii
--	--------------------------------------	---	---	-------------------------------------	---	---	---	---	-------------------------------------	--	---	--	---	--	---	--	--	--	---	--	---	---	---	---	---	--	---	--	--	---	---	---	--	---	--	--	--	--	--	--	---	---	--	--	---	---

Shaping the Law

Industry commissions of NWLB regain authority in wage cases under first interpretation of Connally-Smith Act.

The first of what promises to be a series of official interpretations of the Connally-Smith War Labor Disputes Act was available for study this week. It was written by the National War Labor Board's general counsel, Lloyd K. Garrison, who is preparing further interpretations for the guidance of the board. A second followed a few days later (page 15). Until the courts decide to appraise Garrison's doctrines—which may well be long after NWLB has ceased to function—they will have the full force of statute as far as the board's operation under the act is concerned.

Board's Status Fortified—The first Garrison ruling is on a relatively minor issue, but it is considered significant. One sentence in the opinion is being taken as a foretaste of other opinions which will follow. It says: "Congress intended to take the board as it was, to accept and confirm its tripartite character, to strengthen its already existing authority, and add to its powers."

The Garrison opinion concerned situations in which board members were and were not disqualified from participating in decisions. Section 7(c) of the act states that "no member of the board shall be permitted to participate in any decision in which such member has a direct interest as an officer, employee, or representative of either party in the dispute."

Commissions Stripped—When the act was passed, a question arose as to whether the high officers of the A.F.L. and C.I.O., who represent organized labor on NWLB, were eligible to sit on cases involving their respective organizations. The board left that question unanswered but did remove authority from its four industry commissions, made up of employers, trade association officials, and union officers. These commissions functioned in the trucking, nonferrous metals, Detroit tool and die, and West Coast lumber industries.

Authority Restored—The Garrison opinion holds, however, that these commissions may, without a change in their form or personnel, have their authority restored. The theory is that Congress did not intend to weaken NWLB and eliminating the commissions would impair the board's effectiveness. Garrison wrote:

"For example, it would, we think, be wholly inconsistent with the purpose of the statute to conclude that Congress intended that no A.F.L. member of the board could participate in any decision involving an A.F.L. affiliate; or that a C.I.O. member



Even before production begins, time, space

and manpower are saved when handling of raw materials

is systematized by

TOWMOTOR



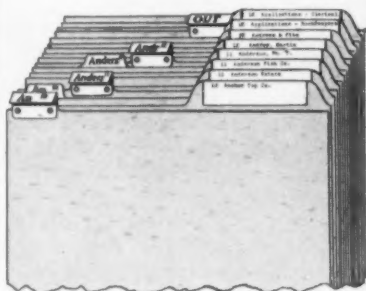
THE 24-HOUR ONE-MAN-GANG

TOWMOTOR CORPORATION • 1221 E. 152ND STREET, CLEVELAND 10, OHIO
STRAIGHT-GAS POWERED INDUSTRIAL TRUCKS EXCLUSIVELY—SINCE 1919

Engineering...Production
Sales...Accounting

"SAFEGUARD" Filing and Finding

It is the system that counts in filing no matter where the files are being used. Names should be easy to locate . . . there should be ample provision for expansion . . . the indexing system must be quickly understood.



Many features are included in the "Safeguard" System made by Globe-Wernicke. It will save money by reducing errors. It will protect valuable papers from being lost and it will reduce the time and effort in filing.

Your file clerks will like the easy, simple, and practical method of the "Safeguard" System. It fits any standard size file cabinet.

Globe-Wernicke provides a complete line of files and filing supplies. Ask your Globe-Wernicke dealer for the new illustrated booklet "For Faster Filing and Finding."

Globe-Wernicke

Makers of over 4000 Items
NEEDED IN OFFICES



CROSS-PURPOSE PICKETS

Long inured to interunion squabbles, Chicago housewives were stumped when rival A.F.L. unions picketed South Side food stores. "Unfair," said Building Service Employees International, after the stores allegedly refused to negotiate. "Fair," said Re-

tail Clerks International Protective Assn., which has a master agreement with the stores through the Cook County Food Dealers Assn. Sorely confident of its jurisdiction, the retail clerks union accused the building employees local of chiseling its membership, broke its no-wartime-picketing pledge to protect stores' trade.

would be similarly disqualified; or that an industry member who was an officer, employee, or representative of the National Assn. of Manufacturers or the United States Chamber of Commerce could not sit in a case involving an employer who was a member of the association or the chamber."

NWLB ADMITS FALLIBILITY

Where a party to a decision of the National War Labor Board demonstrates that the board's order does not satisfy the equities of the case, the board will remedy its mistake. Such was the substance of an announcement issued by NWLB this week as it reversed a decision setting the effective date of an agreed 5½¢ increase for about 800 employees of the Flannery Bolt Co. of Bridgeville, Pa.

The board's reversal changed the retroactive date from July 1, 1942, as it had previously ordered, to Feb. 15, 1942, in response to a petition from C.I.O.'s United Steelworkers, which claimed that an error had been made. Employer members of the board, who dissented from the change, were nevertheless pleased that NWLB's majority admitted its fallibility and opened the way for further rechecks of its awards.

KAISER LITIGATION ENDS

It has taken an act of Congress to get Henry J. Kaiser off the spot in the bitter clash between A.F.L. and C.I.O. His Portland (Ore.) shipyards became the battleground for the two labor groups when the C.I.O. challenged his union shop contracts with the A.F.L. as collusive and illegal. The fight over which organization would represent Kaiser employees went to the National Labor Relations Board which, under the Wagner Act, had no alternative except to sift all charges and order a poll taken to determine which union the Kaiser workers wanted to represent them (BW-Jun. 5'43, p. 77).

Appalled at what a collective bargaining election campaign might do to shipyard routine and output, Congress tacked a rider onto the Labor Dept. appropriation bill prohibiting NLRB from reopening a labor contract that has been in effect over three months.

Last week NLRB announced it was removing from its docket C.I.O. complaints against the West Coast shipbuilder, ordered a hearing for Aug. 2 to see why the case should not be dismissed without prejudice.

Don't laugh at old Diogenes!

EVEN if Diogenes *did* spend his days, lantern in hand, looking for an honest man, it wasn't such a joke as one might think. For there is no certain method of determining whether an individual will remain honest through the years. Take case 167014 from U. S. F. & G. files. Credit manager and treasurer of a manufacturing company, he was 36 years old, father of two children, and a model of propriety. Yet he embezzled \$4,668.21 from his employers. Fortunately they were insured against employee dishonesty and suffered no loss.

Illustrated on this page are other cases showing some of the hazards that demand insurance protection. Your local U. S. F. & G. agent will be glad to make a wartime audit of your present insurance program to help protect you from financial loss. He is one of thousands serving communities throughout the U. S., its possessions, and Canada. Consult him today.

Branch Offices in 43 Cities • Agents Everywhere

U.S.F.&G.

UNITED STATES FIDELITY & GUARANTY CO.

affiliate:

FIDELITY & GUARANTY FIRE CORPORATION

HOME OFFICES:  BALTIMORE, MD.

Consult your insurance agent or broker

as you would your doctor or lawyer

Try laughing these off

(Actual Cases from U. S. F. & G. files)



Case No. 11-A-654

Coffee Scalds Yachtsman

Precious as coffee is, the pot held too much to suit the mid-west executive... for when the boat rolled, the coffee spilled, severely burning him. Fortunately he carried accident insurance with U.S.F.&G. and received \$737.00 for medical expenses and time lost from work. Would you be similarly compensated?



Case No. 35-B-198

Hard-Working Burglars

Determined indeed were the burglars who climbed to the winery's first floor roof, forced a window, cracked the safe, and ripped out the "burglar-proof" chest inside. Their loot... over \$600. But thanks to burglary insurance with U.S.F. & G., the owners were spared this loss. What about *your* place of business, *your* home?



Case No. 21-G-1297

Wind Shatters Glass

The big blow in the little Pennsylvania town might have been a severe financial blow to the main street shopkeeper... for it shattered his plate glass display window. But the shopkeeper had been wise enough to insure his window through U.S.F.&G. and so was spared any loss. Are your glass windows and doors insured?

MARKETING

Noble Buys Blue

RCA sells network, as required by FCC, for \$8,000,000. Ownership of three stations constitutes principal asset.

For a year and a half, since the Federal Communications Commission fathered a shotgun divorce of the Blue Network from NBC's Red, the radio industry has known that the Radio Corp. of America would sell the Blue. National Broadcasting's No. 2 network has, in fact, been operated separately ever since Assistant Attorney General Thurman Arnold took the antimonopoly cudgel in hand and started swinging it over the networks in general and NBC in particular (BW-Jan.10'42,p44).

• **New Standard of Value**—But forewarning did nothing to dull trade excitement last week over the purchase of the Blue Network by Edward J. Noble, owner of New York's radio station WMCA and chairman of the board of Life Savers Corp. It was as though for the first time in the meteoric rise of the industry a value had been set on radio broadcasting. The Blue Network and its three owned and operated stations were sold for \$8,000,000. Virtually the only other standard of value for sale of a top ranking station was that established seven years ago when the Columbia Broadcasting Sys-

tem bought KNX. Hollywood, for a price of \$1,250,000.

The three stations which the Blue owns and operates constitute the principal asset which Noble acquired, for the network itself represents only a collection of valuable, but nonetheless alterable, contracts with 155 stations, 43 of them on the so-called basic Blue (in addition to the three owned and operated stations) and 112 on supplementary hookups.

Just how these contracts may be valued in comparison with the revenues from the owned and operated stations may be surmised from the estimate of Broadcasting Magazine that the Blue would have had a net operating loss last year had the revenue from the owned stations not offset this by some \$30,000. This year, the Blue estimates it will turn in a million dollar profit.

• **What the Blue Has**—The Blue's owned and operated stations are WJZ in New York City, a full-time 50,000-watt station; San Francisco's KGO, which operates with 7,500 watts; and WENR in Chicago, which operates half time, sharing its wavelength with WLS, an independent station which is, however, affiliated with the Blue Network. Important as these stations are, listening surveys show that outlets of both the NBC and the Columbia Broadcasting Co. systems, and sometimes other stations, enjoy wider popularity in the three cities.

It is on purchase of these stations, rather than of the network, that FCC will hold hearings prior to official confirmation of the sale. (In compliance with the FCC ban on single ownership of any two stations in the same city, Noble is already making plans to sell WMCA, which he bought in 1941.)

• **Sales Gains Impressive**—Largely responsible for widespread interest in the sale—and the \$8,000,000 selling price—are skyrocketing billings of the Blue. In the first six months of this year, sales ran to \$12,541,940—a 62% increase over a \$7,576,145 volume in the same period last year. In June, the increase was even more spectacular, with \$2,026,731 sales running 82% over \$1,118,943 in June of 1942.

Much of this increase can be attributed to generally increased business and overflow from NBC and Columbia, but the improvement in the Blue's competitive position, resulting from the intensive selling activity, is evident in the fact that the Blue, so far this year, has consistently outgained the up-and-coming Mutual Broadcasting System, whose sales for the first six months were only 10% ahead of last year. Even Mutual's gain of 65% in June was less



COASTERS COME THROUGH

Delivery of Pittsburgh's new telephone directory posed labor and garage line problems until someone thought of boys with coaster wagons. The distributed 257,000 books in less than a month, 12,000 more than a commercial distributor delivered last time.

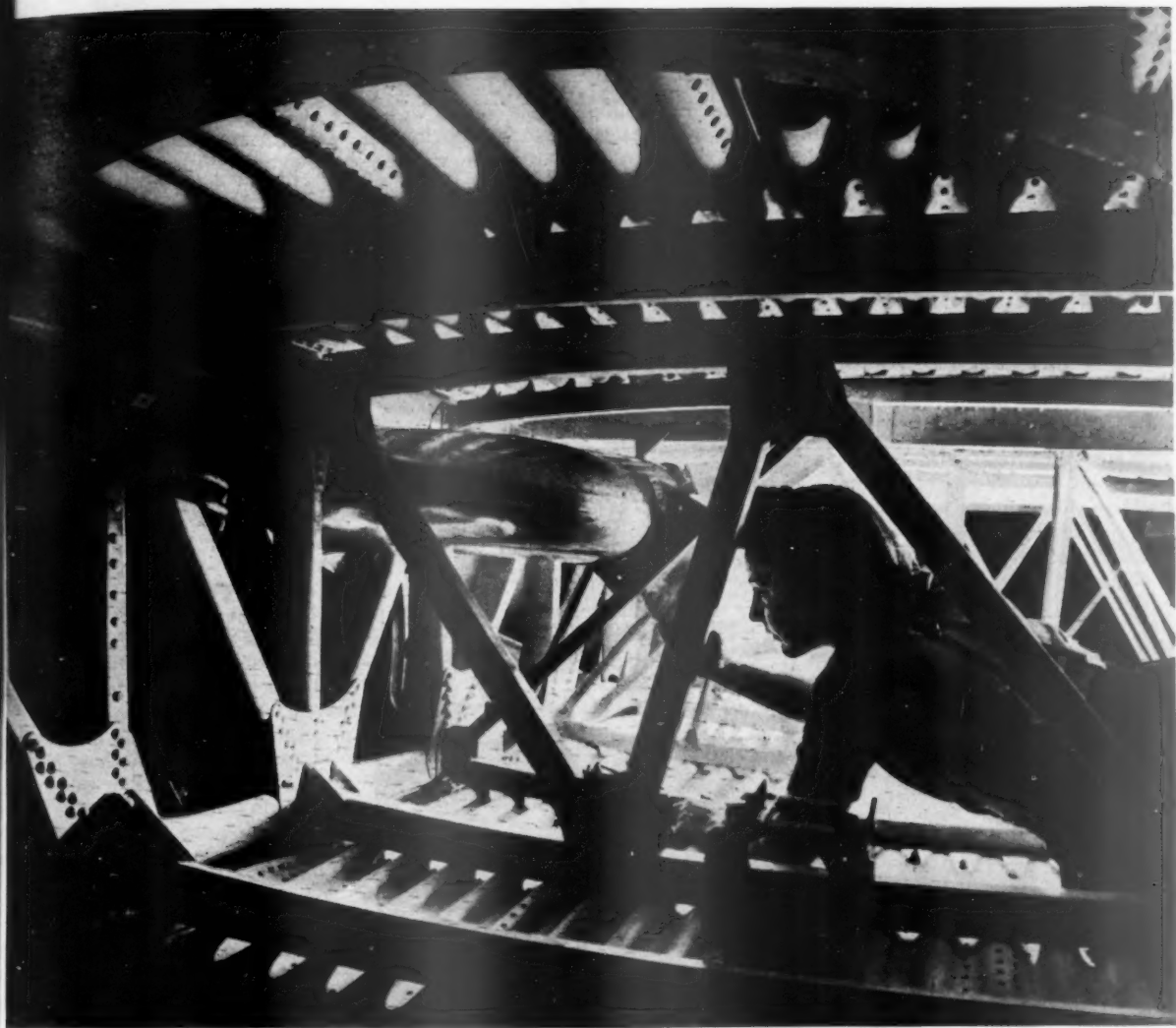


Following a week of aggressive competition in bidding for the Blue Network, Edward J. Noble, former assistant Secretary of Commerce, closed the deal with an offer of \$8,000,000.

than the Blue's. This reverses competition for 1942 when Mutual's sales of \$9,636,159 were 32% ahead of 1941 while the Blue gained 29%, rolling in a \$16,152,088 volume. Sales of NBC and Columbia ran around \$45,000,000 each last year.

• **Stepchild No Longer**—Next to business, the trade regards divorce from NBC Red as probably the biggest factor in the dramatic rise of the Blue. It was common gossip that the Blue was a stepchild in the RCA family and that the Red got most of the fat contracts. The fact that the Blue is now on its own is almost as important to Columbia and Mutual, which have long been nettled by NBC's ability to offer advertisers a choice of stations in many cities and to switch stations onto which the network needed them under the old Red-Blue arrangement.

Currently, the Blue Network rate card shows prices which are about two-thirds the charges for the same amount of time on CBS and NBC. This price relationship is taken in the trade as a fair reflection of the comparative



Buy War Bonds and Stamps

Wing of battle

The pilot said, "I looked out at our right wing and saw it was all shot to hell. There were holes everywhere. A couple of them were shell holes—big enough to drive a sheep through. The other wing was all shot up, too."

But with two engines knocked out, with rudder and stabilizers torn by exploding shells, half of the controls shot away . . . the Boeing Flying Fortress* fought off 40 Focke-Wulfs and made her way home safely to England.

THAT TRIP really started on a drafting board in the Boeing plant at Seattle,

where the wing you here see under construction was designed.

It is rather a remarkable wing. For one thing, it is today carrying double the load it was originally intended for . . . including bomb loads ranging up to 10 tons, equaling or surpassing any other bomber now in service.

The enemy have found it a difficult wing to put out of commission. Axis pilots have learned that even when they pump hundreds of bullets into a Fortress wing, it does not collapse. One reason is that Boeing distributes the stresses in

such a way as to minimize the effect of damage in any one locality; the enemy can shoot pieces out, but can seldom destroy the wing entirely. Such a wing might appear difficult to manufacture, but Boeing builds them in large numbers with a minimum of man-hours—a tribute to Boeing production engineering.

Some day Boeing skills in research, design, engineering and production will be turned once more to products of peace. And then, as now, you may know of any product . . . if it's "Built by Boeing" it's bound to be good.

DESIGNERS OF THE FLYING FORTRESS • THE STRATOLINER • PAN AMERICAN CLIPPERS

*THE TERMS "FLYING FORTRESS" AND "STRATOLINER" ARE REGISTERED BOEING TRADE-MARKS

BOEING

strength of the Blue in terms of signal power and listening audience.

● **Financing Prospects**—For the present, Noble is maintaining 100% ownership and says that any other financial arrangements are definitely in the long-range planning department; he suggests they may eventually include partnership, sale of stock to affiliated stations, and even sale to the public. Feeling in the trade is that stations will be allowed to buy in heavily.

Shift in Shoes

Sales in low-priced lines perk up under stimulus of "good-as-any" slogan; rationing has hit cheap shoes hardest.

Abetted by a bigger bankroll in shoppers' pockets, rationing has stepped up demand for high-priced shoes, left cheap models to gather dust on basement counters. Upper bracket manufacturers and retailers, who had formerly disdained aggressive advertising, found that rationing gave them a wonderful handle for promotion, and they went to town.

Dealers in low-priced footwear sat on the sidelines and chewed their nails. Then they got an idea. Now it looks as though, before long, the shoe may be on the other foot.

● **As Good as Any**—Witness recent hard-hitting advertising by Thom McAn and others suggesting that, with the best grades of sole leather now going to the military, quality differences between high-price and low-price lines are narrowing.

Opinion among the various shoe and leather experts in Washington is that while civilians, by and large, are having to get along with inferior grades of leather, some top-grade stuff which doesn't meet Army specifications is still available. And they point out that there's a lot to shoes besides leather.

● **Cheap Shoes Drop**—Sharpest sales drop under rationing has been in shoes in the very lowest price range—footwear retailing for \$2 a pair and under. A National Retail Dry Goods Assn. survey among its department store members at the end of the first ration period showed typical sales increases of 25% to 40% in shoes retailing at \$7 and over, 15% in shoes selling at \$6 to \$7, and 10% in \$4 shoes.

A sample survey, run off by the Cen-

sus Bureau for OPA, showed that in first ration period 38.1% of the consumers paid their accustomed price for shoes, 10.9% paid less, and 48.3% more. Half of those paying more reported the increase was less than \$1.

● **Shaking Down to Normal**—While statistics are plain enough, the fact was somewhat surprised that they did reflect even more of a stampede. The one reason observers think sales are gradually be shaking down to normal.

WPB already has acted to bring a little relief where frozen production quotas pinch most. On boys', misses', children's, and infants' shoes (where rationing has caused the greatest hardship) manufacturers are allowed to increase production 25%. They're also allowed a 15% increase on men's work shoes and a 25% increase on men's safety shoes. Manufacturers of misses' and children's shoes can eliminate lines retailing below \$2, concentrate all the production of cheap models at the price.

● **Guarding Quality Difficult**—OPA has been hacking away at the problem of deteriorating quality with no compensating reductions in price, but it has proved a tough nut. Manufacturers always have adhered more rigidly to the price lines in shoes than in almost any other section of the clothing field, and OPA has found that it is well-nigh impossible to compel a maker of a \$9 shoe to slash his price because, through no fault of his own, he can't get as good leather as he used to.

Last spring, OPA proposed to the industry a scheme for fixing prices on a cost-plus-markup basis which was designed to take care of reductions in quality, but a mighty howl went up and little more has been heard of it.

● **Sharp Drop from 1942**—Total civilian shoe production this year is estimated at about 380,000,000 pairs (this includes 40,000,000 pairs of house slippers). That is a pretty sharp drop from 1942 (440,000,000 pairs); and 1942, in turn, was 9% under 1941 (the shoe industry's record year).

Whether even this projected rate of production can be maintained is not certain. The sharp drop in cattle slaughter, both in this country and in Argentina (which accounts for the bulk of imports that supply 15% of the U.S. hide market), has cut into the shoe leather supply. If cattle slaughter doesn't pick up, a further slash in shoe production may be necessary.

● **More without Coupons**—OPA probably won't decide until mid-October whether the present rate of rationing—three pairs of shoes per person annually—can be maintained. Last month, rationing regulations were relaxed to allow the trade to dispose of small quantities of slow moving shoes without benefit of coupons. There's a good chance that this gesture will be repeated periodically,



SELLING BY SYMPHONY

RCA president David Sarnoff, Dr. Frank Black, conductor of the NBC orchestra, and General Motors president C. E. Wilson hold a prebroadcast conference just before G. M.'s first symphonic program goes on the air. With broadcasts scheduled every

Sunday afternoon at 5 p.m. E.W.T. over NBC Red, General Motors becomes the second big national advertiser in as many months to seek to capitalize on America's growing appreciation of good music. United States Rubber Co. sponsors the New York Philharmonic over CBS Sundays at 3 p.m.

ON THE BLOCK

The Army has ended speculation about the future of the Stevens Hotel, bought a year ago (BW-Jan. 27'43, p18) to house 3,000 technical trainees. The hotel itself and the adjoining Stevens Bldg. are being offered for sale. Army Engineers in Chicago will accept sealed bids for the property until 2 p.m., Sept. 4. Built in 1927 at a cost of \$26,000,000, the Stevens was sold to the Army for \$6,000,000. The hotel was stripped of its civilian furnishings and they were auctioned (BW-Feb. 27'43, p70). How to refurbish the 3,000 rooms in a period of drastic shortages is the first problem that will confront the successful bidder.

The Stevens was the only one of the 435 hotels taken over by the government as living quarters for trainees which was purchased outright (BW-Jul. 10'43, p28).

the amount of shoes involved is very small.

Dealers were allowed to unload only 1% of their inventory of women's shoes, 1% of men's shoes, and 2% of infants' and children's. Because they were forced to slash prices, many retailers can't take advantage of OPA's offer.

Noncritical Materials—WPB estimates that production of shoes made of noncritical materials (and therefore unrationed) is now at the rate of about 1,000,000 pairs a month. But beginning Sept. 1, these will count as part of civilian manufacturers' quotas.

In spite of consumer howls about the inequalities of shoe rationing, OPA has no present plans for revising it on a point or any other basis. The refinements wouldn't be worth the administrative headaches. The price agency shows that prerationing sales figures showed that the average woman wore 8 pairs of shoes a year, the average man only 2, but family pooling of coupons is expected to make up for any hardships. Also ration boards have been instructed to tend toward leniency in granting extra coupons.

A.P. INDICTMENT STICKS

Last week the Great Atlantic & Pacific Tea Co. released its annual financial statement proudly reporting a reduced net earnings rate of only 0.79% on sales of \$1,471,177,992 as compared with 1.21% in 1941. No sooner had A.P. made its public relations gesture than an unappreciative federal appellate court declined to uphold a northern Texas District Court that had dismissed

"Copper" Homes Can Buy More Bonds

Use of copper and its alloys in home construction reduces maintenance cost to a minimum—saving time and money for war busy homeowners of World War II.



"Copper" Home

Keeping Upkeep Down

Many a far-sighted homeowner can buy extra war bonds with money that his less fortunate neighbor must apply toward home maintenance. When building his home some years back, the owner who's saving now was the one who insisted on rustproof copper and brass.

As a result, it's easier and less expensive to keep this home in tip-top shape. The brass or copper piping . . . the copper gutters, downspouts, flashing . . . the bronze screens and hardware are free from rust attack and the resulting repairs and replacements.

Today, of course, all production of Anaconda Copper and Brass goes to war, but postwar builders will benefit from The American Brass Company's continuing research in the realm of new alloys, new applications and new production techniques.

V for Versatility

The Allied symbol of Victory in World War II also stands for Versatility. America was able to swing swiftly into all-out production for war because American industry knew how to convert factories from peace to wartime use almost overnight. This ability to change over is hastening the day of victory.

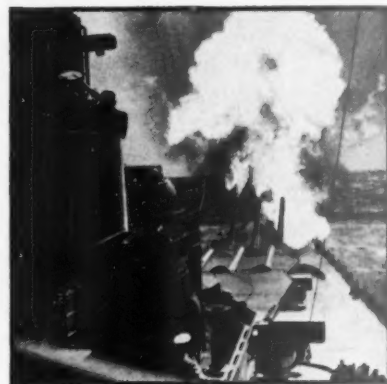
Examples of industry's amazing conversion to war production are countless, especially in the field of copper and brass fabrication. A former producer of washing machines turns out intricate bomber parts. A vacuum cleaner manufacturer is making time fuses. A plant that formerly made safes and locks produces gun mounts and projectiles. A firm that specialized in brass compacts and lipstick holders now concentrates on brass primers for artillery shells.

The American Brass Company, oper-

ating 13 U.S.A. and Canadian plants, provides many of these converted factories with copper alloys for the products they now make. In addition, the company turns out tremendous tonnages of cartridge brass and gilding metal cups and discs which are used in the manufacture of small arms ammunition and shell cases.

Oldest, Most Useful

Copper, "man's oldest and most useful metal", is more precious than gold in warfare. Wars have been won by nations with little gold—witness our own Revolution—but no nation can fight a modern war successfully without a vast amount of copper and its alloys.



Axis Tamer

Not only is copper vital to the Army, it is even more important to the Navy. Without copper alloy condenser tubes a modern battle fleet would be immobilized. Communications, fire control, every operating element of a warship depends on copper. Even the big guns depend on copper for accurate firing, each projectile having one or more driving bands made of copper or a copper alloy.

Even in the old days of wooden ships and iron men, the Navy sheathed its hulls with copper for protection from marine growths and parasites.

To keep abreast of the wartime needs of our Navy and other branches of the fighting forces, plants operated by The American Brass Company will fabricate this year considerably more copper and copper alloys than in any previous year. For this achievement every one of the many thousand U.S. employees has earned the right to wear the "E" pin and to see the Army-Navy "E" pennant flying over his plant.

Published in the interest of a better informed war effort by

THE AMERICAN BRASS COMPANY 

General Offices: Waterbury 88, Connecticut • Subsidiary of Anaconda Copper Mining Company

buell

DUST RECOVERY SYSTEMS

Recognized throughout industry for their outstanding qualities and performance

In the field of mechanical dust collection, the van Tongeren cyclone, (used exclusively in Buell Dust Recovery Systems) has proved notably efficient and economical for the elimination of hazardous dust nuisances and the recovery of valuable material in

CHEMICAL & PROCESS INDUSTRIES

FOUNDRIES & MACHINING OPERATIONS

FOOD PROCESSING

ROCK PRODUCTS INDUSTRY

POWER PLANTS

MINING & METALLURGY

and other industries

BUELL ENGINEERING COMPANY, Inc.

60 WALL TOWER, NEW YORK 5, N. Y.

WRITE FOR BULLETIN G-842

BUY WAR BONDS AND MAKE THE AXIS BITE THE DUST

an indictment against the chain (BW-Dec. 5 '42, p69).

The court remanded the case for further proceedings against A.&P. on ground that there was insufficient cause for quashing the indictment with charged violation of the Sherman Antitrust Act by conspiracy to monopolize interstate commerce in food. In throwing out the case originally, the lower court had ruled that the Dept. of Justice's indictment was inflammatory and prejudicial because it was vague and indefinite, and that the venue was not properly laid.

Reversal simply means that the case will start all over again in the district court, because as the appellate court stated "while the information is meager it is not so meager as to require quashing of the indictment . . . since full information could, and if requested should, be supplied by a bill of particulars."

Meanwhile, Safeway Stores, Inc. and the Kroger Grocery & Baking Co. are worried about reversals on decisions in which a Kansas City district court ruled that similar indictments against Safeway and Kroger were vague and that the venue was not properly laid (BW-Jul. '43, p8). Chances of reversal are, of course, materially improved by the latest D. of J. victory against A.&P.

G.E. ASKS ABOUT MODELS

Consumers were given a hand in another postwar blueprint when General Electric asked its more than 225,000 stockholders how they would like their refrigerators, electric ranges, washing machines, air conditioning, and electric blankets—when they can get them again.

General Motors pioneered the customer question bee a decade ago, and the practice is now well on its way to becoming a standard technique in sampling postwar tastes. Questionnaires, illustrating various model choices, have already been distributed by the Florence Stove Co. (BW-May 8 '43, p74) and the Crane Co. (BW-May 15 '43, p94).

General Electric asks its consultants to choose between these proposed styles which were on its drawing boards before the war but never placed on the market: (1) a round refrigerator with revolving shelves or a rectangular one with sliding shelves, (2) four kinds of refrigerators—a regular household refrigerator which will accommodate half a dozen packages of frozen foods, one with a large frozen food compartment to hold a week's supply of frozen food in large economy packages, one with a separate frozen food storage cabinet and another cabinet for quick freezing and storage, or a walk-in cooler with built-in freezer, (3) table top model stoves or high-over models.

G. E. also asks advice on electric dishwashers, garbage disposal devices, wash-

machines, dryers, electric irons, air conditioning at \$200 a room, mixers, vacuum cleaners, alarm clocks (bell, buzzer, or musical notes), and vacuum cleaners.

FEWER CIGARS, BUT BETTER

American men are smoking fewer cigars, but their tastes are running to more expensive varieties. In June, wholesale cigar sales amounted to 449,695,4, or 15.5% fewer than in June, 1942, according to U. S. Treasury tax withdrawal figures compiled by the Cigar Institute of America. The loss was in cigars retailing at less than 6.1¢ (3.8%); those selling above that figure advanced 79.2%.

The trend is discernible in the discontinuance of some of the low-priced models (Ameradas, Spencer Morris cigarettes), in diminishing supplies of others, and in a shift of promotional effort to higher-priced cigars. Makers of Bayuk, Phillies, laboring to keep abreast of military and civilian demands, are pushing a 10¢ de luxe model. Cigar stand owners report that supplies of Phillies, White Owls, and other better-known brands are becoming smaller and smaller.

Cumulative figures for the fiscal year ended June 30 emphasize the shift to the more expensive cigar and the drop in total volume. Total sales for the year were 6,002,765,674, as compared with 102,836,687 the preceding year. Higher-priced cigars constituted 17% of the 1942-43 total, as against 10.8% the preceding year—1,022,613,332 against 1,576,367.

RETAIL OUTLETS ADDED

A likely pattern for postwar mail order merchandising was indicated recently when both Spiegel, Inc., and Chicago Mail Order Co. announced plans for opening retail outlets, following a lead well established by Sears, Roebuck & Co. and Montgomery Ward & Co.

New vice-president in charge of retail sales at Spiegel is John W. Miller, for ten years merchandising economist at Ward's. In announcing his election to the board of directors, Spiegel indicated that its first excursion into retail selling will be cautious; for the duration may not involve more than two or three stores.

The company opened its first two catalog order offices, both in Chicago, last month. This aspect of its localized selling may progress faster than actual retail stores, because it requires no additional merchandise investment and little physical store property.

Chicago Mail Order Co.'s retail outlets will be known as Alden stores to capitalize on a trade name which has long identified its top-quality merchandise.



"Will we have long to wait, Steward?"

"No, sir, just a few minutes. We've got an extra heavy load this trip, including a lot of soldiers and sailors. And as you probably know, a large part of Seaboard's dining car equipment is being used on troop trains."

"I guess we civilians haven't any kick about that, it's up to all of us to put the war effort first."

KEEP ON BUYING WAR BONDS AND STAMPS
Remember, there's no let-up, no time-out, for our fighting men

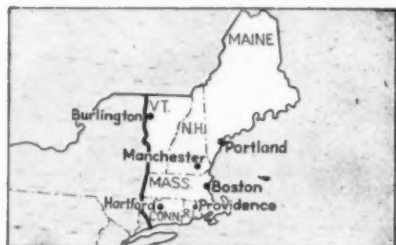
SEABOARD RAILWAY

**WORKS
FOR
VICTORY**



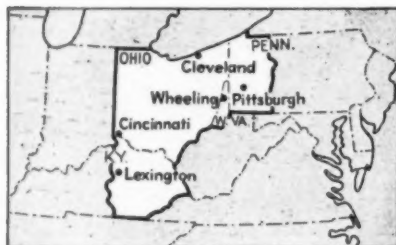
THE REGIONAL MARKET OUTLOOK

A summary of industrial, agricultural, and other trends affecting the income and general business prospects in twelve Federal Reserve districts of the nation for most recent month. (Last month's report: BW—Jul 31 '43, p. 43)



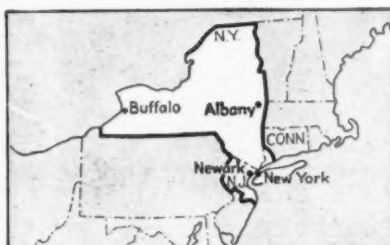
• **Boston**—One index of the intensified manpower problem in this industrialized region is the drop in employment levels below a year ago recorded recently in arms-dominated Hartford County, Conn. Sign of the spread of the pinch to eastern consumer goods areas is the reclassification of textile-making New Bedford as a critical shortage center. Job rolls in all areas now are flattening out. An especial laggard is the shoe industry, which is short both of hides and of labor. Resort sections, however, are experiencing peak seasonal business comparable to pre-war years. And Burlington, Vt., will benefit from a new plant to employ 4,000.

Dairy and poultry farmers are squeezed between diminishing feed supplies and fixed prices, and black market income from sales is offset by black market losses from purchase of feed. But Maine potato growers, already prospering, figure to harvest a 25% larger crop this year.



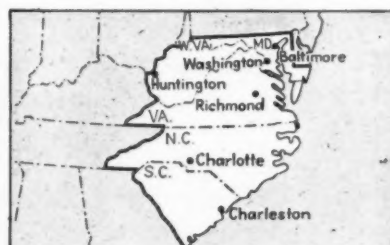
• **Cleveland**—Manpower shortage still dominates industrial prospects in this region. But it's significant that incoming orders have fallen off sharply, not only for machine tool makers but also for other machinery, small tool, foundry, and construction equipment lines. In steel, the concern is over coke capacity now, and because of laggard Great Lakes ore shipments, over iron supplies next spring when stockpiles will run out. Ceramics and glass container output is high, but textiles, paperboard, and other civilian lines increasingly are being pinched by the shortage of labor.

Meanwhile, factory payrolls are rising approximately in step with national totals as hours stretch and workers move to higher-paying lines. Farm receipts are being padded with some black market profits, though marketings through regular channels are not yielding the same sharp gains as in some other regions.



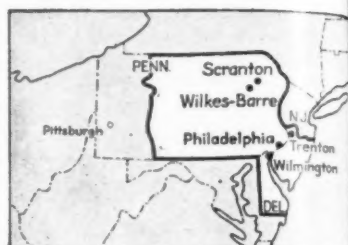
• **New York**—Another recent upturn in the proportion of total contracts awarded to New York State in general and New York City in particular points up the increasing attention being paid to the remaining unused labor reserves which could be brought into the war effort in this laggard region. The boom continues in such upstate centers as Buffalo, Syracuse, Utica, Schenectady, while metropolitan employment rolls advance slowly, not only in the "big city," but also in northern New Jersey, southwest Connecticut, and Long Island—war areas close to peak utilization of labor.

Agricultural income also is trailing. Though pasturage is excellent, hay crops may be off, and dairymen have a corn-feed problem. Fruit crops—pears, peaches, grapes, apples, cherries—were harder hit in this district than in most. And egg output has not increased as swiftly as it has in other agricultural sections.



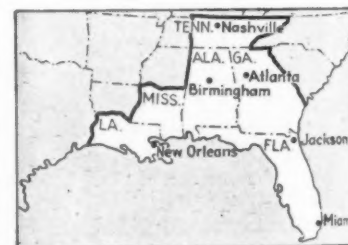
• **Richmond**—Production in what used to be this district's chief industrial lines—cotton, textiles, lumber and paper, etc.—is now being diminished in greater or lesser degree by the shortage of manpower. Though construction work has fallen sharply from the 1942 high, and though shipbuilding and government employment are now tending to stabilize, the uneven distribution of labor reserves and the complications of price ceilings are limiting manpower use. Job gains over 1942 still are above average in Virginia and more particularly Maryland, but are hardly phenomenal elsewhere. West Virginia actually shows a decline.

Farm receipts in all states are keeping pace with the national average. But tobacco and cotton harvests are apt to run below bumper year-ago totals, and labor is a bottleneck in northern truck and livestock-producing sections. The over-all income trend is running towards nearer-average rises.



• **Philadelphia**—This income-lagging region can boast of more than the Philadelphia industrial-metropolitan area, where payrolls have kept pace with the national average. It can point to a boom state all its own—Delaware. Nonfarm employment there is 10% over 1942 as against 5% for the nation chiefly because of expanded shipbuilding and about Wilmington. In addition, farm receipts have outstripped the nation's. Delaware is among the few states to show a population advance since 1940 (page 42).

But, most district cities outside the Philadelphia area still are trailing in payroll totals; among the few exceptions are Lancaster and Williamsport. The sluggish hard-core area continues to improve, not only because of greatly enlarged demand for antiaircraft but also because arms plants are being located at Scranton and nearby towns. Pennsylvania farming sections continue to retrace below-par income gains.



• **Atlanta**—Growing conditions so far this season have been fairly favorable. In case, district agriculture is less vulnerable to weather now, due to the accelerated start during the war years from cotton and tobacco to soybeans, peanuts, potatoes, etc. So far, receipts have not been up uniformly and total regional farm returns have trailed the nation's. Autumn prospects are bright.

Industrial activity is still marked by the drop in construction and the steady rise in armaments. Indeed, war production will expand more sharply in this region than almost during 1943. Synthetic rubber, aviation gasoline, and magnesium works are coming into production in Louisiana. Shipbuilding along the coast and aircraft manufacture in the major district cities are the chief stimulants. Altogether, district income may outstrip the nation's this year, but the variations will be marked from section to section.

A GUIDE TO INCOME TRENDS

Weather improves crop prospects, but not up to 1942 bumper yields; price gains will offset the reduced harvests, however. Manpower continues to pose problems for war production areas scheduled to expand munitions output.



Chicago—Gains over 1942 in farm income lagged behind the nation's so far this year. For one thing, livestock was held off the market only to be flooded into stockyards now. However, feed supplies cannot support higher livestock production, and that points to a flattening in total beef, pork, milk, and poultry receipts soon. This holds even though corn, especially in Iowa, is recovering strongly from excess spring rains, and soybean yields promise to exceed 1942's.

Arms activity continues to push to new highs, but manpower difficulties are now becoming acute in such large centers as Detroit. Chicago is booming as engine and cargo plane plants come into operation, though employment is easing at nearby steel towns. Payrolls in Milwaukee and Indianapolis are tending to flatten out at levels well above a year ago. Iowa output is not up so sharply as in other states. Income here still runs almost up with the nation's.



St. Louis—The crop outlook is improved but is far from bright. Tobacco acreage is up, and rice prospects are good. Sharp drops are likely in corn and hay harvests. Fruit and truck crops also are down sharply from 1942. Cotton acreage is off, with yields likely to suffer from the late season. To top all, livestock breeding rates here are running below the national average. Altogether farm receipts in most sections—though perhaps not in Kentucky burley country—are apt to trail the average.

Employment gains also are running lower than those in other sections of the country, and the curve of total district income has not been advancing as quickly as the index for the nation as a whole. However, the St. Louis industrial area is doing as well as most; Louisville, Memphis, Little Rock, and Pine Bluff are above average; Evansville's boom in the last year has been unusually spectacular.



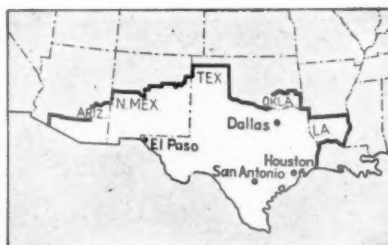
Twin Cities—Farmers here aren't expecting to duplicate 1942 results; wheat acreage is up 10% over last year, but crop estimates are down 10%. Corn yields also will be off. Expectations were that South Dakota would be hardest hit, but improved weather has raised hopes again. If conditions continue for the better in the next two months, the farm outlook generally can improve spectacularly. In any case, boosts in flax acreage and harvests will help. As for current receipts, the Dakotas have been exceeding most states' gains, with Montana average, Minnesota and central Wisconsin now behind.

But, whether the district will surprise again, as in the past two years, by keeping up with national income curves, will depend on autumn harvests. Certainly war work continues at a minimum. The Twin Cities have the bulk of what contracts there are, and employment is up enormously also at Eau Claire, Wis.



Kansas City—Though corn crop estimates will run below last year's bumper harvest, recent weather has improved prospects. What's more, even if corn yields run as far behind 1942 as the now-harvested wheat crop, receipts will not be affected because prices of the grains are now about 25% above 1942 levels. Except in laggard Wyoming, increases this year in farm income run between 40% and 50%, well ahead of the national average. Livestock products, which still account for the bulk of agricultural income, have been returning excellent receipts, but prices recently have dropped off, and supplies of protein feed are running short. Pastures, however, are in good shape.

Even in this region of extraordinary warplant expansion, the armament boom has not about reached its peak. A few major plants have yet to come into operation, but construction work has dropped off, and employment in some sections is leveling out.



Dallas—Petroleum again moves to the forefront in this chief producing region. Output has risen 25% above 1942, due to improved transport and sustained demand; it will gain further. But drilling is still at a minimum for lack of price incentive. Meantime, production of rubber, aviation gas, etc., is accelerating along the Gulf Coast.

Cotton prospects are reasonably good for this stage, but where picking has begun labor is short. The trend is sharply towards more mechanical harvesting, which results in inferior grades. Sorghums, wheat; oats, rice, peanuts, and potatoes will be up from 1942. Because beef-hog-corn price relations are unfavorable to finishing, cattle have not been moving to feed lots; but the temporary drought which flooded animals off pastures into slaughter has been ended by rains. Meanwhile, civilian employment at arms plants and military bases continues to gain strongly.



San Francisco—Agriculture, which still accounts for a sizable segment of district income, is continuing to yield gains in receipts over year-ago levels of at least average proportions, due to the impact of excess national purchasing power on returns from fruit and vegetable crops. Most crops this year will be off in volume from last year, but the price factor will more than compensate.

Meanwhile, despite a 9% increase in civilian population over the past three years—as against a 2.4% decline for the nation (page 42)—this district's industry continues to be beset by manpower difficulties, the most recent acute case being of Boeing in Seattle (BW—Jul. 31 '43, p. 80). Expansion is still under way in petroleum, rubber, steel, shipyards, and aircraft plant facilities. Worst hit by the shortage of manpower are canning, lumbering, and mining—former standbys in the district.

COMMODITIES

Soybean Tangle

Everybody wants a better marketing setup than last year, and problems are tough. Use of oil in nonfoods is banned.

During the last war, a large quantity of Manchurian soybean oil was imported to relieve U. S. shortages of oils and fats. Nobody liked it; nobody knew how to use it; almost everybody was ready to write it off as a flop. The food industries were certain, from their ersatz experimenting, that soybean oil could never be refined to be fit for food products, damned it as destined only for industrial uses.

• **For Food Only**—Since then, its standing has so improved that two months ago the War Production Board, facing an acute shortage of edible oils, ordered that no soybean oil can go into any non-food product. Actually, only a small fraction of total domestic soy oil production had been going to other than table uses for many years.

But this nonfood fraction was a substantial tonnage. Hence the order spread consternation among makers of paints and varnishes, linoleum, foundry core binders, and dozens of assorted inedible products in which this oil had been a major constituent.

• **One Day's Topic**—An impressive index of how far up in the world this workaday Oriental legume has come was a meeting held last week in Chicago. Summoned by the Commodity Credit Corp. and the Agricultural Adjustment Agency, 250 men who are leaders in today's half-billion-dollar soybean industry sweated through an all-day session in a steaming room. They talked solely about the 1943 bean crop.

Attendance included the head soybean men of such potent food firms as A. E. Staley Mfg. Co., Archer-Daniels Midland Co., Allied Mills, Central Soya Co., the Glidden Co., Spencer Kellogg & Co., and Swift & Co. But also there were country elevator operators, agricultural college experts, and dirt farmers, particularly from the four Corn Belt states—Ohio, Indiana, Illinois, Iowa—which until last year produced and processed around three-quarters of all U. S. soybeans.

• **"What Do You Think?"**—The meeting was intended to settle nothing. It merely permitted the bean trade and the Washington officials to exchange views. But theirs was not idle talk.

CCC last year controlled every bean that entered commercial channels from

the instant it left the elevator until as oil and meal it was sold to users. Serious mistakes brought down upon CCC the ire of everybody from the country elevator operator who lost money at his 34¢ to 44¢ a bushel handling charge to the cattle feeder who could not get soy meal because he was not a regular customer of the feed store which handled government meal.

• **CCC Must Deliver**—Washington consequently wants to interfere just as little as possible but cannot possibly withdraw completely. Soybeans are a major factor in the war food program for fats and oils. Farmers boosted bean acreages on Sec. Claude R. Wickard's promise of big prices. CCC must make good on this covenant and still hold products beneath OPA price ceilings.

The Chicago meeting explored ways and means. CCC wants to let the trade take over. The trade wants to foster this conciliatory attitude. Everybody knows that otherwise CCC will buy all beans, give the processor a fixed margin on his tonnage, and require so many reports that little time would be left to crush beans.

• **Risky Business**—CCC is setting the support price of No. 2 beans at \$1.80 a bushel, f.o.b. point of origin. The price of meal will probably be \$45 a ton, f.o.b. Decatur, Ill.; oil will likely be \$11.75 per hundredweight.

The processor cannot sell his product

more than 60 days ahead, nor is there any futures market in which to hedge his commitments. If beans should rise very much above the support price upon which the entire deal is based, the crusher would have to shut down or else lose his shirt.

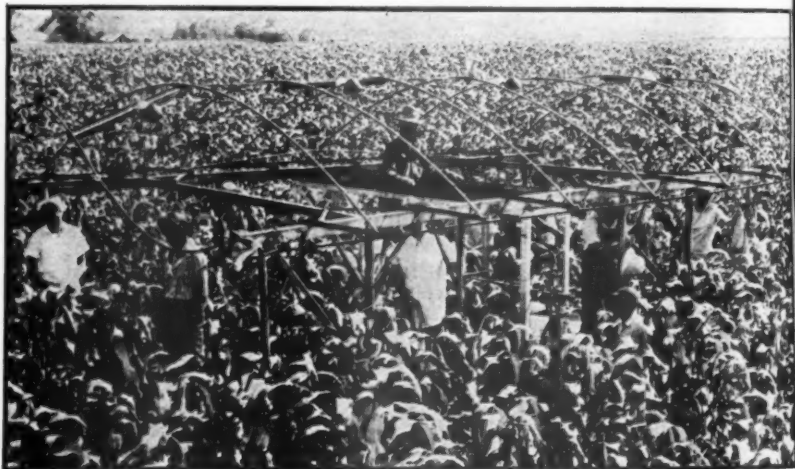
• **Ceiling on Beans?**—The industry is hoping it gets as a safeguard a ceiling on the beans themselves. At the same time, realists recognize that Washington must postpone a ceiling until it is too late in the season for the farmer to cut his soybeans for hay.

Last year's margin, beginning at 22¢ per bushel to the largest, most efficient mills, looked pretty thin. Actually, processors did well because meal unexpectedly soared to the ceiling, resulting in what amounted to a bonus.

• **Profitable Damage**—Also, for the first time, the industry had to take a huge tonnage of damaged beans—at discounts set years earlier by pure theory. Milling proved these discounts actually profitable for the crusher.

But 1943 damage discounts have been lowered. Flat prices for meal and oil are assumed. With no give in sight, and with processing costs upward bound, crushers are praying for a 25¢ minimum margin, are guessing they will get 22¢ to 25¢.

• **Those Moisture Tests**—Most unhappy about prospects are the elevator operators. To sweeten up farmers, CCC last spring tacked on a brand-new idea of premiums for low moisture content, now dares not back down. The country elevator man demands savagely how he can run a moisture test that takes 30



SAVING THE SEED

Production of hybrid corn for seed requires years of inbreeding before the final crossbreeding to get the desired strain. This means controlled pollination through all these generations. Labor of many careful hands is required—a requisite the seed men were a bit dubious of meeting this

year. School girls from half a dozen Corn Belt states saved the day for Lester Pfister, El Paso (Ill.) hybrid seed raiser. Working from a detasseling platform (above), the girls snap the tassels from alternate rows at the silk stage for the hybridization. These detasseled rows are fertilized by pollen of parent stock in adjacent rows, producing ears to be used as seed.



What's the Big Idea in SYNERGISM*?

Just this—to get greater results per dollar of cost from the interchange of ideas that yield "plus" values in the solution of problems.

No field affords greater opportunity for synergistic thinking than chemistry. Here the interchange of ideas in overcoming problems can uncover a world of "plus" values . . . new and better ways to make old products, new uses, new advantages, greater selling values.

Consider the case of some deodorants made with an emollient cream of the oil-in-water type. Such deodorant compounds are subject to evaporation and crystallization. Shelf life is shortened, as is home use because crystals form to scratch the skin, and creams gradually harden and crack. The manufacturer has a problem.

Atlas has developed an emulsifier known as Arlcel C which provides a synergistic approach to the problem. Arlcel C gives a water-in-oil cream which is non-irritating and remains free from crystals because it does not dry out. This will answer the problem, but the net result is even more—a "plus" value because creams made with Arlcel C have a smooth, cosmetic feel, are stable, act faster and more uniformly and leave a thin emollient film on the skin after application.

Synergism gives a "2 plus 2 equals 5" result. Arlcel C is one of a group of Atlas emulsifiers. Their range of usefulness is limited only by the number of emulsifiable products and the synergistic thinking applied to them.

If you have a problem within the scope of Atlas products, we would like to try synergistic thinking with you.

Synergism—the meeting of minds "clicking together" . . . the impact of ideas to give a result greater than the sum total of the ideas expressed . . . "2 plus 2 equals 5" result. Synergism is a big help in making product improvements.

Pat. Reg. U. S. Pat. Off.



ATLAS

POWDER COMPANY
WILMINGTON 99, DELAWARE
Offices in Principal Cities

Industrial Explosives • Industrial Finishes • Coated Fabrics • Acids
Activated Carbons • Industrial Chemicals • Ordnance Materiel

Copyright 1943, Atlas Powder Company

KEEP 'EM SLUGGING...BUY WAR BONDS



CONDENSED SPECIFICATIONS
 Ram Stroke $\frac{1}{2}$ " to 7"
 Strokes per minute 45, 78, 122, 200
 Cutting Speeds $3\frac{1}{2}$ to 116 feet per minute
 Table Travel, horizontal 93"
 Table Travel, vertical 47"
 Overall Dimensions 36" 17" x 26" high

AMONG OUR CUSTOMERS

DeLaval Separator Co.
 Douglas Aircraft Co., Inc.
 Dow Chemical Company
 Eastman Kodak Company
 Electric Boat Company
 Fairbanks Morse and Co.
 Fairchild Aircraft Division
 Firestone Tire and Rubber Company
 Fleetwings, Inc.
 Ford Motor Company
 Ford Motor Company of Canada, Ltd.
 General Electric Company
 General Mills, Inc.
 General Motors Corporation (24 Divisions)
 B. F. Goodrich Company
 Goodyear Aircraft Corp.
 Grumman Aircraft Engineering Corporation
 Hercules Powder Company
 Houde Engineering Corp.

"MATCH THE MACHINE TO THE JOB"

"Mobile Warfare"... the Nazis almost conquered the world applying that idea. Today, American industry's equally potent production idea—"match the machine to the job"—is helping the world rid itself of the Axis.

More planes, tanks, ships, guns—more "firepower" rolls from production lines because we've learned to use big machines for the big jobs only, calling on modern, fast precision tools for small parts production so that capacities of larger machines will not be wasted. The Atlas 7-inch Shaper is one of the new compact precision tools boosting American industrial "firepower" at lower costs.

"Match the machine to the job" helps bring victory closer. It will also smooth the way for quicker change to the products of peace. Get acquainted with the compact Atlas precision tools now...

Write for the name of our nearest distributor.



ATLAS PRESS CO.

885 N. PITCHER ST., KALAMAZOO 13D, MICH.

Atlas 4 TOOL TEAM for Small-Parts Machining



minutes on each of 100 to 150 loads of beans received in a busy turn day, meanwhile weighing loads, dumping them, and paying farmers.

Nobody is proud of last year's handling of soy meal feed. Panicked the world's record meal output prospect for 1942, Washington set ceilings very low. CCC subsidized the entire crop and even prepared to dump meal into fertilizer.

• **The Canny Feeder—Processors** hard to prevent being swamped. Stockmen got the point of cheap and high livestock, bought all the meal they could, and fed it waster. Presently soy meal was short and been ever since.

Hence CCC's current intention to protein prices in a more stable relationship to corn, with the probable of soy meal around \$45. To encourage farmers to market their beans instead feeding them direct, priorities are in wind to let the producer-feeder back his feed requirements up to bean production.

• **Up and Up and Up—Soybean production** has risen steadily from under 100,000 bu. in 1924 to over 200,000 bu.:

	Acreage (000)	Production (000 bu.)
1934	1,539	23,095
1935	2,697	44,370
1936	2,132	29,983
1937	2,549	45,272
1938	3,105	62,729
1939	4,417	91,272
1940	4,779	77,374
1941	5,855	106,712
1942 (est.) ..	10,762	209,000
1943 (goal) ..	12,000	220,000

The industry openly doubts that its output exceeded 180,000,000 bu. the 200,000,000-bu. goal had been reached, processors say, they would be scurrying around for beans to until the new harvest or imploring CCC to sell them government beans.

• **Late Plantings—Likewise**, the trade guessing a 200,000,000-bu. maximum crop for 1943, even though acreage probably 3,000,000 above the food grade. Late planting in the wet spring means green damage if frost comes early.

Crushing capacity of the process with plants from Ohio to Iowa climbed every year, even in wartime. The northern industry, which includes the dozen biggest outfits with 80% total U. S. capacity, estimates it can handle 120,000,000 bu. of the 150,000 bu. which will be processed in the 1943 crop.

• **Where Subsidy Comes In—**Here 30,000,000 bu. will have to go to southern and Pacific Coast cottonseed and copra crushers who also helped out with the 1942 beans. Since these mills are less efficient in crushing soybeans, CCC will necessarily subsidize their operations.



"THAT'S A BUILD-UP FOR A SMASH-UP"

NEW to the job, this young worker has stacked the chain high on the hook that it can tip and crash the load.

Industrial inexperience and carelessness of all kinds cause two deaths, plus 200 non-fatal accidents, per year. Last year there were 1,500 deaths and 1,750,000 non-fatal on-the-job accidents.

The calculated sabotage of enemy agents in America is small compared to the havoc wrought by loyal but expert workers. Managers and old-timers can help them

by telling them about the National Safety Council's organized "don'ts" for crane and hoist operation shown below. Our Wright

and Ford Divisions of American Chain & Cable Company, makers of hoists and chain blocks, are convinced that these rules, faithfully followed, will largely reduce hoisting accidents.

Hoists and chain blocks are but two of a long list of products we make for Industry, Transportation and Agriculture, which are essential in peace, vital in war.

National Safety Council Suggestions for Safety in Hoist and Crane Operations

1. Don't load chain too high on hook—or on the point.
2. Don't wrap load chain around load.
3. Keep hands away from load and sling while load is hoisted and lowered.
4. Don't stand between moving load and fixed object.
5. Keep out from under load.
6. Don't deposit load on inadequate support. Provide stops to retain stock which might roll.
7. Keep angle between sling legs as small as possible and see that hook will hold.
8. Make certain load can't tip or slide out of sling.



The American Chain & Cable Company is happy to cooperate with the National Safety Council in its nation-wide campaign to "Save Manpower for War-power"—which is now being conducted at the request of President Roosevelt.

In Business for Your Safety

AMERICAN CHAIN & CABLE COMPANY, Inc.

BRIDGEPORT, CONNECTICUT In Canada—Dominion Chain Company, Ltd. • In England—The Parsons Chain Company, Ltd., and British Wire Products, Ltd. Aircraft Controls, American Chain, American Cable Wire Rope, Campbell Cutting Machines, Ford Chain Blocks, Hazard Wire Rope, Manley Forge Equipment, Owen Springs, Page Fence and Welding Wire, Reading Castings, Reading-Pratt & Cody Valves, Wright Hoists and Cranes

50 YEARS OF PROTECTION

THE HINDE & DAUCH PAPER CO.

CORRUGATED **H&D** FIBRE BOXES
AND PACKING MATERIALS

SANDUSKY, O.

SIGNED FOR HINDE
DAUCH & CO. INC. HINDE

Mr. J. F. McFadden, President
American Credit Indemnity Company
First National Bank Building
Baltimore, Maryland

Dear Mr. McFadden:

Contrasted against the background of credit conditions during the past 50 years, the 50th Anniversary of American Credit Indemnity Company is indeed a notable achievement.

Wars - and there have been many of them - other catastrophes, business depressions, economic changes, all have caused innumerable commercial failures and tremendous losses to creditors. Yet, during the entire period, your Company has continued to reimburse creditors for losses caused by the failure of customers.

For 50 years, American Credit has successfully countered the credit upheavals - not of a single firm or single industry but of all business in all industries. You and your associates with their predecessors are certainly to be congratulated.

May the next 50 years be less troublesome, but may they also bring American Credit even greater success.

Very truly yours,

THE HINDE & DAUCH PAPER COMPANY

L. R. W.
Asst. Secretary-Treasurer

LRW:CLW

H & D FACTORIES ARE LOCATED IN BALTIMORE BOSTON BUFFALO CHICAGO CLEVELAND DETROIT GLOUCESTER, MA
HOBOKEN KANSAS CITY LEONIA, N. J. MINNEAPOLIS RICHMOND SANDUSKY, OHIO ST. LOUIS MONTREAL TORONTO

J. F. McFadden,
PRESIDENT

FIRST NATIONAL BANK BLDG.
Baltimore



Guarantees Payment of *Yorke* Accounts Receivable

tions. Probable disposition of the expected 1943 plantings of 15,000,000 acres with expected yield of 200,000,000 bu. is:

Hay, forage, and abandoned.....
Harvested as beans.....

Seed.....
Feed on farms, carryover, export.....
Made into feed and oil.....
Milled for edible flour.....

The wide spreads in estimates beans to be made into edible flour because nobody knows what soy flour will be called upon to make up in dietary shortages of protein in the U. S. in the United Nations, and in foreign rehabilitation. WPB has approved construction, expansion, and conversion provide 30,000,000 bu. of flour-making capacity, and new mill buildings are going up alongside several of the industry's larger plants.

• **Soy Flour in Stores**—Several of the larger processors are currently entering the domestic consumer market with grocery-store packages of soy flour which if it catches on, will remove this product from the health-fad, fancy-price list. Staley's Stoy in one- and three-pound packages at 15¢ and 42¢, retail, is currently getting a market test in Columbia, S. C., Harrisburg, Peoria, Sacramento, Shreveport, Sioux City, Providence, and Utica. Glidden is about to launch a consumer brand. H. D. Mercantile Co., Kansas City wholesaler has in recent months been plugging soy flour by radio.

• **British Market**—Since July 25, the use of 7½% of soy flour in all sausage has been mandatory in Britain, and more than 37½% of meat. This combination produces a sausage with protein content 60% that of a full-meat sausage. (U. S. sausage makers may use soy because its protein so closely resembles meat protein that chemical detection is difficult.) The British Food Ministry is seriously considering a higher mandatory soy flour content in all bread.

Staley introduced soy oil as a non-edible industrial material and then carried through technical improvements until it gained tremendous acceptance in oleomargarine, shortening, and other food fields. Before WPB's prohibitions nonedible uses were also gaining.

• **Loses out in Plastics**—Major uses have been developed for Glidden's isolated soy proteins, particularly in paper coatings and paints. Plastic uses of soy proteins have been pretty well written off by the industry as a mirage. Even Ford Motor Co.'s much-touted plastic automobile parts now contain a very small fraction of soy, and the most recent bulletin of the Soybean Processors Association reports that Ford is finally discontinuing use of soybeans in plastics.

At postwar altitudes...



25,000 feet

20,000 feet

15,000 feet

you'll feel no discomfort in the AiResearch-pressurized cabin!



Outside, it may be an icy 70° below as your postwar airliner flies you at great altitudes away above the storms. But in the AiResearch-pressurized cabin, you'll be as warm and cozy and relaxed as in your own den.

Even at 20,000 feet, you'll be free from common high altitude discomforts. With no sense of dizziness. No headache. No ear-popping.

Fantastic? Not at all! Since long before the war, a group of America's leading engineers have been working to perfect the pressurized cabin for airliners.

Much of this development work has been carried on in our "Stratolab," a

gigantic airtight chamber which can put intricate air control devices through their paces in temperature below minus 90° F. . . and in air as thin as that at 65,000 feet altitude!

When peace comes, thanks to such AiResearch engineering you'll be able to enjoy luxurious travel where flight

is smoothest and fastest — high in the upper air.

• *Out of AiResearch's wartime experience will come other new conveniences for a peacetime world . . . devices that will add to better ways of living on land and sea as well as in the air.*



"Where Controlled Air Does The Job" • Automatic Exit Flap Control Systems • Engine Coolant Systems • Engine Oil Cooling Systems • Engine Air Intercooling Systems • Supercharger Aftercooling Systems



R for a crane

A WRENCH, an I-beam, a 'Budgit' Crane Assembly and an hour's time—with these you can build your own jib crane.

With another Crane Assembly an I-beam and a shaft you can acquire a bridge crane. There is no machine work to do, no holes to drill when building either of these. Nor do you need a skilled mechanic to do the work.

Simple, complete instructions are included with every Crane Assembly.

Quick deliveries are made (on priority) and your new crane can operate the day you receive the 'Budgit' Crane Assembly. Transportation costs are low as you buy the heavy parts, the I-beam or shaft, from the nearest source.

This is not an untried doubtful experiment. Thousands have been built for war work and they are doing the job all over the country.

Write for Bulletin 355 which contains full information of this quick, economical way to acquire jib or bridge cranes.



'BUDGIT'
Crane Assemblies

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Show-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'Americas' Industrial Instruments.

Silver Is Fungible

Foreign supplies, Treasury stock, and domestically mined metal are physically identical, but don't confuse them!

Silver is silver—fungible is the word—no matter where it comes from. Yet to WPB—and to you as a user of silver—there's a big difference between Treasury silver, domestically mined silver, and foreign silver.

• **How It All Came About**—The differences have arisen due to passage of the Green bill (BW—Jun. 5 '43, p19) which allowed the Treasury to sell about a million ounces of its "free" silver. This silver, under terms of the law, couldn't bring less than 71.11¢ an ounce. OPA already had a ceiling on domestically mined silver at 71.11¢ an ounce and a lid on foreign metal at 45¢ an ounce.

It was up to WPB, OPA, the Treasury, and advisory committees from all the trades that wanted to use silver to decide who was to get it, how much, and at what price. They've been laboring with the subject for weeks and only now have come up with the answers—answers that won't bring any joy to the hearts of manufacturers of nonessential items made of the white metal.

WPB has drawn up three lists of users designated A, B, and C, which may be summarized as follows:

List A—Foreign silver may be used only in the manufacture of medicines and health supplies, in the photographic industry, in the manufacture of electrical contacts and other products or parts used for electric current-carrying purposes, and in certain miscellaneous products on priorities of AA-5 or higher. Price: 45¢ an ounce.

List B—Domestically mined silver may be used at a rate not higher than 50% of the base period (1941 or 1942, whichever is higher) in making nonessential items, as stipulated in the original Order M-199, such as silverware; watch cases, jewelry, etc.; non-military badges and insignia; church goods defined in Order L-136; slide fasteners, hooks and eyes, buttons, etc.; closures for containers; pens, pencils, and parts; toilet articles and picture frames; musical instruments; and electroplating for nonoperational purposes. Price: 71.11¢.

List C—Treasury "free" silver will be available only to manufacturers of engine bearings, official military insignia, brazing alloys, and solders. Price: 71.11¢.

Until this matter of the eligible users and the prices they must pay was ironed out, Treasury silver was available only on loan. Even then it was limited to nonconsumptive uses. About 700,000-000 oz. had been released for emergency needs that won't destroy the metal.

• **More Loan Silver**—The Treasury can and will continue to lend silver, but this metal, which must be returned in-

tact after the war, isn't equal to demand. To start with, the Treasury's own need for ever-mounting coinage are large. Industrial demand is rising at the rate of 5% to 10% a month. And the supply of foreign silver coming into the country is declining (which can't be good news for the users on List A who get the break of a 45¢ price only so long as the supply lasts). Finally, lend-lease requirements are described as substantial.

Under the circumstances, nonessential users probably would have been frozen out gradually if it hadn't been for the passage of the Green bill to take care of vital war needs. The non-essentials have been drawing silver at the rate of about 30,000,000 oz. a year.

• **Prorate Hit a Snag**—Originally, WPB and OPA had thought to prorate the price differential—let all users have a stipulated percentage of the 45¢ silver with the remainder of their allotments coming out of the 71.11¢ categories. This plan was sidetracked after protests of those who had been allowed to fill requirements with 45¢ silver, notably the photographic industry.

WPB limits the amount of silver that may be held in inventory, but it doesn't demand that the three classifications be kept separate. This represents a victory for Handy & Harmon, leading bullion dealer. Unwilling to keep in stock a large supply of high-priced domestic silver which would be constantly subject to political hazards, the firm followed a practice that was condemned by WPB's Compliance Division.

• **Substitute as Needed**—Handy & Harmon simply kept on hand 45¢ silver. When orders came in for domestically mined silver at 71.11¢, the firm filled them out of the 45¢ inventory and then went out to replace the amount sold by purchase from home mines. WPB was afraid Handy & Harmon might be unable to deliver at times due to depleted inventory under this system.

Incidentally, 71.11¢ Treasury silver turns into 45¢ foreign metal when it has been reduced to scrap in the processes of manufacture unless the scrap remains in the ownership of the manufacturer who produced it.

SETTLEMENT ON LINSEED

Minnesota's linseed crushers are breathing easier. Their troubles under WPB's Order M-332 (BW—Jul. 24 '43, p100) have been resolved, apparently to the satisfaction of everyone.

The order, in effect, required at least 30% dilution of linseed oil, but an old state law said, "No dilution." It was compromised: WPB amended its order to include a minimum as well as maximum dilution limit, and the state agreed to wink at the letter of its law.

The industry's worry was that M-332 would open the way to excessive dilution and to production of inferior paint.

"FOUR FREEDOMS" THAT RELEASE More Power FOR VICTORY!

PRODUCTION

Combat Pipeline

Shell Oil reveals that it has supplied the Army with portable conduit to carry gasoline right up to front lines.

With all the pride of parenthood, Shell Oil Co. this week unwrapped, as War Dept. censorship would permit, its prize baby of this war for limited public inspection. It is a flexible, portable pipeline, engineered so that it can be laid on top of the ground, by ordinary soldiers, and controlled automatically at the delivery end, so that it is not necessary to have any terminal storage facilities.

Automatic Controls—The trick in the job, as explained by Sydney Smith, Shell's products pipeline manager who began working on the idea when war broke out in Europe, nearly four years ago, is full automatic control. (When flow is cut off at the delivery end, intermediate pumps are automatically shut down.) The technique, naturally, is a military secret, but it's no secret that successful application of the idea made "a material contribution to the success of our armies in the field." Those words were written in a letter of commendation by Brig. Gen. R. F. Fowler, chief of the Army Engineers supply division.

First trial of the portable pipeline under fire was in North Africa. Although military reports on the subject are vague, the inference is that one reason for successes in North Africa and Sicily was that the mechanized equipment was kept supplied, and that the portable pipeline was a vital link.

Targets Minimized—Heretofore, gasoline for front line fighting has had to be moved up by trucks; these trucks and the storage dumps often were splendid targets. The Germans, it's reported, did have low pressure (about 250 pounds) pipelines of aluminum they used to transfer gasoline from tank cars to storage tanks in the field, but so far as known, they haven't developed anything to compare with the Shell line, which eliminates both tank trucks and advanced storage tanks for front line distribution.

The Shell line comes in 4-in. and 6-in. diameters. The 4-in. line delivers a maximum of 6,000 barrels daily, the 6-in. 10,000. Operating pressures are 400 lb. to 600 lb. per square inch, compared with commercial pipeline pressures of about 1,100 lb. The pipe is spirally welded of light, mild steel, can be bent around trees or up and down hills. Each section is exactly 20 ft. long and weighs

Freedom from friction . . . freedom from power-loss . . . freedom from wear . . . freedom from maintenance . . . Dodge-Timken Bearings combine ruggedness, precision construction and smooth operating efficiency to bring those "four freedoms" to industry!

These rugged bearings give freedom to power for full, unhampered flow to production machines. They free plants from "power blackouts" caused by maintenance shutdowns . . . they free production schedules from slow-ups caused by obsolete, worn out, friction-ridden bearings.

Delivered completely assembled, Dodge-Timken Bearings are ready for

instant installation. Depend on them for 30,000 hours of uninterrupted service on jobs for which they are designed. Their original efficiency is preserved by lubrication that lasts throughout 50 million revolutions under normal operating conditions . . . and by built-in seals that retain lubricant and exclude dirt and other foreign substances.

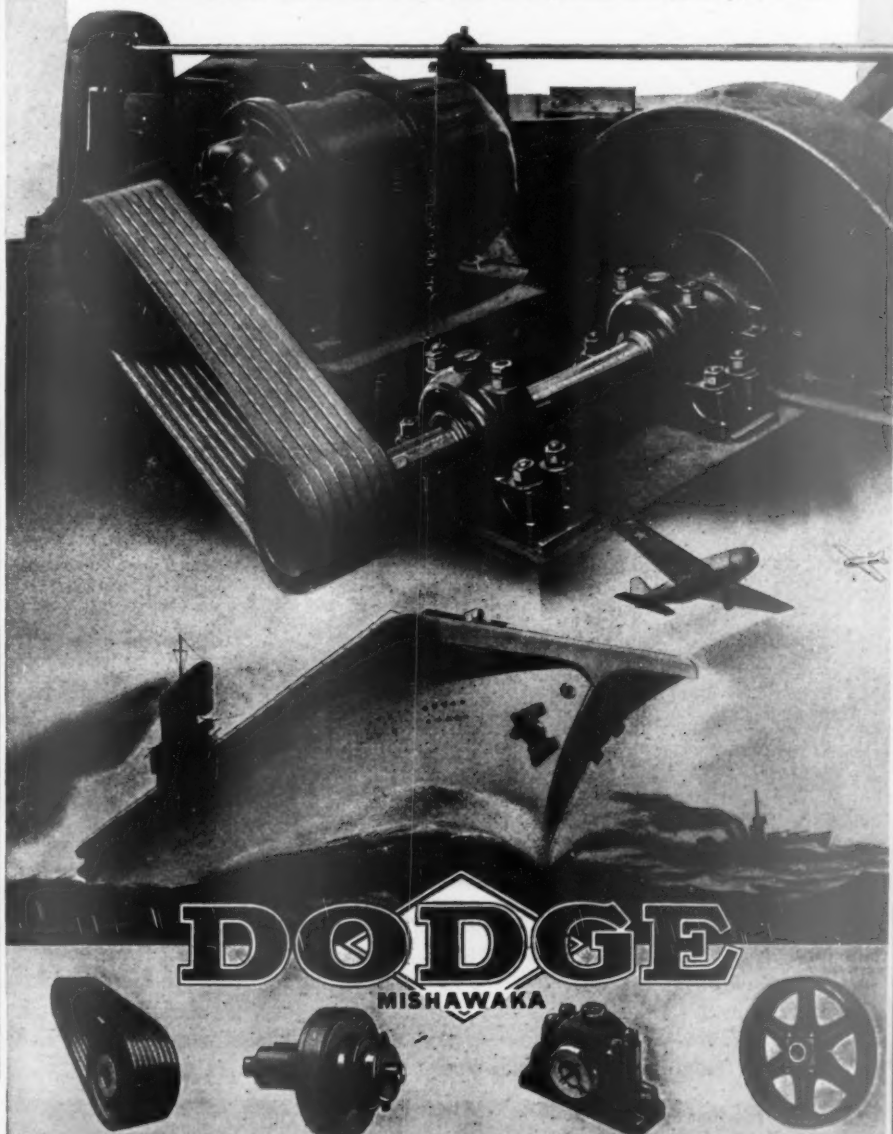
Now, and in post-war competitive production, give your plant the advantages of the "freedoms" Dodge-Timken Bearings and other

Dodge Power Transmission Equipment provide.

Contact your local Dodge Distributor or write to us for more information.

Throw All Your
Scrap Into the Fight
★
Buy More War Bonds

DODGE MANUFACTURING CORPORATION, Mishawaka, Ind., U.S.A.



THE RIGHT DRIVE FOR EVERY JOB

90 lb. Two men and a truck can lay eight to ten miles of it a day and make field repairs in short order with an ordinary wrench.

● **Self-Camouflaging**—If there is doubt about a grade, says Smith, "put in too many pumps." They are ordinarily ten miles apart. The pipe camouflages itself by taking on an oxide (rust) coating; pumping stations are camouflaged carefully by the Army. An individual station can be repaired in a few hours. No communication system, other than patrols, is needed, because the valves, at half a mile to a mile apart, are regulated automatically, and a separate line is laid for each product.

The Army's first order, after tests in the Midwest and along the Skyline Drive in Virginia, was for installation on the Burma road. When the Japs took that, the 1,000 miles of pipe, valves, and gasoline-operated pumps were diverted quickly to North Africa. Cost of materials, without labor and transportation, was estimated at \$3,000 a mile.

● **No Royalty Collected**—Alexander Fraser, president of Shell, says the company is getting no royalties on its portable pipeline development. Although the controls were adapted from principles used on regular lines, and the variations may be useful later, a light, low pressure line is not regarded as having any commercial value in peacetime. In addition, the useful service life of the portable pipeline is held to be only about two years.

Ceramic Heater

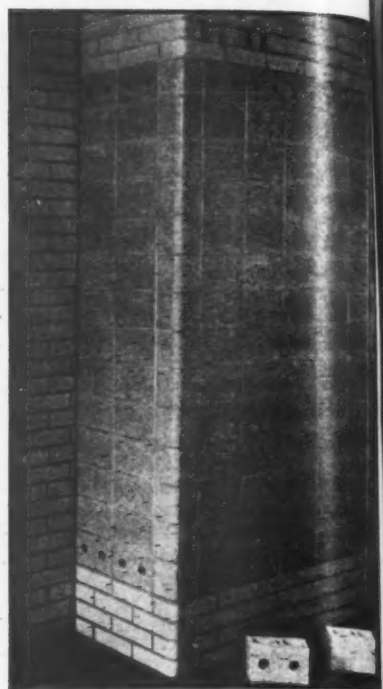
Pittsburgh housing project meets equipment shortage with a built-in hollow-tile furnace based on German idea.

Another generation took the hot brick to bed. Now the brick is being built right into the house—at least until wartime shortages permit resumption of orthodox furnace production.

○ **Approved by WPB**—The ceramic tile space heater which the Pittsburgh Housing Authority is installing in its Broadhead Manor housing project is an adaptation of the German-Swiss-Scandinavian "Kachelofen" and the hot-brick-at-the-feet idea. Approved by the U. S. Bureau of Standards and the clay products division of WPB, the heater is built of hollow glazed tile around a small iron gate. It burns any fuel except gas and oil.

The heater is built in the center of a house, its exterior walls exposed to the rooms it is intended to heat. A flue conveys heat to the second floor. In the housing project, the fuel bin and the firing door are in the entrance halls.

● **Tile "Ventilated"**—Alexander Dzubay, Pittsburgh heating engineer who was familiar with the floor-to-ceiling Kachelofen, developed the heater at Carnegie Tech around a basic idea supplied by Dr. B. J. Hovde, administrator of the



Built-in tile heater developed for the Pittsburgh Housing Authority conserves scarce metals, while at the same time heating efficiently.

housing authority, and Michael Rosenauer, consulting architect on the project. In his first try, Dzubay used solid glazed brick, but this was slow in heating and developed terrific temperatures. Even the hollow tile was too hot until the engineer hit on the idea of allowing air to flow through the hollow tile through holes at bottom and top. This speeds up the time required for the unit to adjust to sharp changes in temperature, and prevents overheating.

The heating system is being installed in 316 of the 448 dwelling units—the smaller ones. It is not easily adaptable to a five- or six-room house because no method has been devised to transmit heat to rooms without direct exposure to the walls of the heater.

EXHAUST HEAT DE-ICES

Development of a de-icer using the exhaust heat of an aircraft engine to prevent ice on the wings and windshield was announced this week by T. M. Girdler, chairman of the board of Consolidated Vultee Aircraft Corp. Various aircraft manufacturers have experimented with the idea of using exhaust heat for de-icing for a decade or so, but Consolidated Vultee is the first to put such a device in actual volume production.

Having been given trial flights on the Consolidated Catalina, the new device is expected to be installed soon on Lib-



Sydney S. Smith of Shell Oil (left) dreamed up a portable, flexible pipeline for military use. It came true in time to be an important factor in the preponderance of transportation that spelled victory in North Africa and

Sicily. Made of spirally welded steel, it weighs only 90 lb. per 20-ft. length, is laid or repaired with simple, two-bolt couplings by ordinary soldiers who do not require extensive special training in order to do the job.

or the
con-
same

osen-
ject.
lazed
and
Even
the
g air
ough
ceeds
t to
ure.

lled
the
able
no
mit
ure

he
to
ld
M.
n-
us
ri-
st
it
it
e-

e
e
r-

M. A. Weckerly, Director of Toledo Research, dreams of devices that out-super Superman. And a gratifying percent of his dreams come true! Buckeye-born, Purdue-educated, a 26-year Toledo-man, his knowledge of weighing and force-measuring fundamentals is both profound and prolific.

RESEARCH made finger-flips fight

● The flip of a switch, the push of a button were once simple gestures of peace. Then Research put them to work for War.

This deceptively peaceful control panel, for instance, monitors a great battery of weighing machines in their rapid and accurate batching of war chemicals and explosives. The fingers that flip these controls do indeed launch major offensives.

Toledo Research has worked, and is working, in many broad fields. Often the results may seem to be of little immediate importance. But the knowledge gained remains as in a reservoir to be drawn on when new problems shout for war-urgent answers.

The war service of Toledo electronic controls fully justifies the research which preceded their development. Their ready availability in these times of greatest need gives promise of what can and will be done by Toledo Research in anticipating problems of the post-war peace.

☆ ☆ ☆

Toledo Dynamic "Electric Eye" Classifier . . . the principles of which were developed by Toledo Research more than 10 years ago . . . today weighs and sorts bullet-cores, at high speed, and to an accuracy of .2 of a grain.



TOLEDO SCALE COMPANY

Toledo, Ohio

Canadian Toledo Scale Co., Limited, Toronto, Ont.

Just out!

McGraw-Hill MANUALS to help the secretary gain speed, assurance, accuracy in taking technical dictation

Let Queena Hazelton, Teacher of Technical Stenography and Shorthand Reporter, make you a specialized technical secretary in your field.

One of these manuals will fit your needs.



1. THE AVIATION SECRETARY

Timely manual of terminology and shorthand outlines specially prepared to equip Gregg secretaries in the field of aviation for quicker results and progress. Covers terms and outlines in air navigation, meteorology, aerodynamics, power plant, air traffic control, radio and communications. 233 pages, \$1.50.

2. SECRETARY TO THE ENGINEER

Teaches the secretary the terminology of various engineering fields—structural, mechanical, electrical, civil, chemical and metallurgical—provides practice in taking technical dictation of typical engineering character, and fulfills the need of the technical secretary for a complete glossary of the common and special terms and phrases of engineering with shorthand outlines. 309 pages, \$1.75.

3. THE MILITARY STENOGRAPHER

Offers excellent preparation and practice material for military stenography, consisting of Gregg shorthand outlines for military terms and phrases, solid-matter dictation, and glossary. Covers, with definitions and outlines, court reporting, court martial proceedings and terminology, military ranks and functions, and complete service phraseology. 133 pages, \$1.00.

4. THE NAVAL STENOGRAPHER

Expertly arranged to develop sound ability in handling naval and marine-engineering dictation. It saves precious minutes by supplying the brief Gregg forms for many frequently used naval terms, as well as providing a knowledge of the meaning and correct usage of technical naval language. 130 pages, \$1.00.

5. THE MEDICAL AND SURGICAL SECRETARY

Trains the Gregg stenographer intensively in the terminology of the anatomist and clinician. It includes solid-matter dictation preceded by technical previews consisting of shorthand outlines and pronunciation and followed by glossaries. A full treatment of Greek and Latin prefixes and suffixes is included, and the use of medico-military terms is featured. 358 pages, \$2.00.

Send this coupon for 10 days' free examination of any of these Hazelton manuals

McGraw-Hill Book Co., 330 W. 42nd St., N. Y. 18

Send me books encircled below for 10 days' examination on approval. In 10 days I will pay for books, plus few cents postage, or return them postpaid. (Postage paid on orders accompanied by remittance.)

1 2 3 4 5

Name

Address

City and State

Position

Company BW. 8-7-43

erator bombers and Coronado flying patrol boats.

De-icers now in use are essentially rubber boots which are inflated and deflated to crack off ice that forms on the leading edges of wings and tail surfaces. Principal advantage claimed for the new device is that it will keep the metal surfaces at a temperature of 60F even at flying temperatures of -40F, and thus prevent ice formation, which lowers flying efficiency.

Technical problems which had to be solved by Consolidated Vultee engineers, who worked in collaboration with Lewis A. Rodert, senior engineer of the National Advisory Committee for Aeronautics, at Ames Aeronautical Laboratories, Moffet Field, Calif., involved heat exchangers, satisfactory heat-resisting metals, and a system of ducts.

Now They're Safe

Steel-toed shoes for the women war workers finally are in production; only four types allowed, styles stipulated.

Since the woman war worker stepped out of Vogue and into the machine shop, she has been fast deglamorized. But now it can be said for the first time that she has been industrialized from head to toe.

• **Full Speed on Safety Shoes**—This week seven manufacturers began producing steel-toed safety shoes for women on a full-line production basis—at the rate of about 3,000 pairs a day. No quota has been set up, but production is expected to reach about 750,000 pairs a year. Manufacturers are producing shoes ac-

cording to specifications established by the American Standards Assn. at the request of the War Production Board and the Office of Price Administration.

Since no lasts existed which would incorporate a steel box in a woman's shoe, WPB wanted to keep machinery requirements at a minimum. Therefore A.S.A. prescribed styles as well as construction standards for women's (1) safety-toe oxfords, (2) high shoes, (3) explosive operations (nonsparking) shoes, and (4) conductive shoes (models designed to dissipate static electricity). To date, only the oxfords are on regular production schedules; others are ready for delivery only where need is most critical.

• **Former Types Out**—Previously, women's safety shoe models designed by various individual manufacturers, have had either plastic or fiber toes which have only about one-seventh the compression resistance of steel, giving the worker what safety engineers call a false sense of security. They maintain that only a steel toe is safe for women doing work for which men are required to wear steel-toed shoes.

Furthermore plastic and fiber toes can be made much more stylish than steel, thus inviting rationing violations. Under existing regulations, women who spend coupon 18 for dress or street shoes and require safety shoes on the job are eligible for an extra coupon.

• **Limitation on Coupons**—OPA announced some time ago that when steel-toed shoes were available extra coupons would be discontinued for other models. Thus the ration-free market will be limited to A.S.A. standard steel-toed shoes, most of which will be sold through industry commissaries at a discount.

Some will be sold at retail however. New York's R. H. Macy & Co. is han-



Ration-conscious women war workers no longer have an excuse to tempt industry's most common accident hazard—falling objects—with open-toed

sandals. Steel-toed safety shoes are available to them this month on a supplementary ration. Steel toes have a compression resistance of 2,000 lb.

ing them now, and Thom McAn will them, mostly on a tie-up with fac- es, giving workers a discount when et in by employers. Retail prices will ge from \$5 to \$7, and commissary es may run as low as \$4.

Who Makes Them—Manufacturers of e safety shoes are International Shoe Co. and Brown Shoe Co., St. Louis; bhard Shoe Mfg. Co., Rochester, H.; Gale Shoe Mfg. Co., Boston; F. McElwain Co., Nashua, N. H.; High Safety Shoe Co., Inc., Allen- wn, Pa.; and Charles Cushman Co., abum, Me.

Stillage Improved

Addition of shark liver oil to distilling byproduct used as cattle feed increases weight- gaining, cuts blindness.

As long as the distillers made industrial alcohol from corn, the stillage or wet mash which was left made an acceptable cattle feed, rich in proteins. But nowadays corn is short, and distillers as well as other producers of the essential industrial alcohol are using more and more wheat—and the stillage which is left isn't nearly so good a cattle feed (BW—Jun. 19'43, p79). Cattle fed on wheat stillage fail to register normal gains, and there is marked incidence of blindness in the herds.

After nutrition experts traced the root of the trouble to the lack of vitamin A in wheat stillage, Blandford Bros., commission merchants in Louisville's Bourbon Stock Yards, began a series of experiments to determine the value of adding shark liver oil to stillage used as cattle feed. Instigated by Joseph E. Seagram & Sons, the experiments, undertaken at the Blair Distilling Co., in St. Francis, Ky., proved so successful that last week Blandford Bros. obtained a whole carload of shark liver oil—at a cost of \$22,000. The initial shipment is expected to supply 50,000 head of cattle for three months.

Recovery Program Launched—Proteins recovered from stillage, principally in the form of "d. d." or distillers' dried grains, are now so valuable as a source of cattle feed that the War Food Administration has launched a \$19,000,000 distillery feed project. Under the recovery program, the War Production Board last week relaxed its restrictions sufficiently to permit four distilleries to obtain the equipment necessary in the recovery of livestock feed. These distilleries are Schenley Distilleries, Frankfort, Ky.; Farm Crops Processing Corp., Omaha; Hiram Walker & Sons, Inc., Peoria, Ill.; and Joseph E. Seagram & Sons, Inc., Lawrenceburg, Ind.

TOMORROW'S

Inspection Problems

ARE ALREADY SOLVED

IN TODAY'S WAR PLANTS



The speed with which munitions and supplies must be produced has made Electric Eye Inspection a "must" today. It is doing its gaging in micro-seconds . . . doing it automatically . . . to an accuracy of .0001.



for
SIZE
WEIGHT
THICKNESS
CONTOUR
FINISH
FLOW
COLOR
SPEED
LIGHT
STRENGTH
HEIGHT
DEPTH


In one plant, Electric Eye equipment is making eight dimensional inspections simultaneously at the rate of 2 1/4 pieces per second.

A cost analysis on another battery of Electric Eye machines shows a net saving of \$167.47 daily per machine.

On still another job, four Electric Eye machines are doing the work of 90 inspectors previously required—and doing it with greater accuracy.

In these and many other cases, Electric Eye Automatic Precision Inspection Equipment is speeding war production . . . insuring split-hair accuracy . . . lowering costs . . . and releasing men for more productive work.

Tomorrow, this same equipment will speed the production of a peacetime world. Lay your plans today for the increased efficiency and economy that you must have.

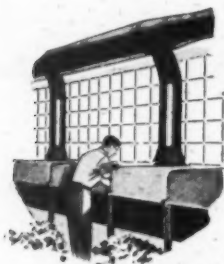


ELECTRIC EYE EQUIPMENT COMPANY

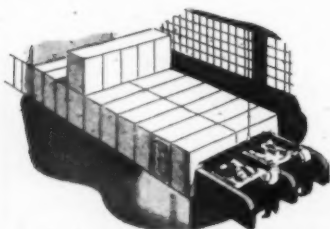
6 West Fairchild Street
DANVILLE ILLINOIS



FOR YOUR FELT HAT, life begins on a rabbit's back. But fingers couldn't handle the tiny, fluffy rabbit hairs that are formed by the million into a fine hat. *Air At Work* can, and does! Dries them, conveys them, piles them into felt, and even removes dangerous fumes and dust along the way! Here's how a rabbit gets pulled into a hat.,.



1. Long, coarse hairs are pulled away from the skins. "Carroting" the skins by means of various acids brings out the barbs on each individual fur fibre, calls for removal of the resultant poisonous fumes. But Sturtevant precision exhaust carries these fumes harmlessly away, protects workers.



2. Downy pelts—up to 16,000 of them an hour, are then dried. Sturtevant cut drying time from 24 hours to 15 minutes by precision control of temperature, humidity. Dried pelts are fed into a machine, separating skin from the fur. Fur is then sorted and sent to blowing machine, where dust and impurities are blown out.

DIFFERENCE BETWEEN RED AND BLACK in many a post-war plant's books will be use of *engineered air* to ventilate, heat, convey, air condition, control dust and fumes, burn fuel more economically. Sturtevant is ready to work with you or your post-war planning committee to start solving these "engineered air" problems now.

B. F. STURTEVANT COMPANY
Hyde Park • • Boston, Mass.

3. Then air conveys the tiny fibres gently to a machine that's the last word in Sturtevant precision air control. It whirlpools fibres down onto a cone where the hat shape begins to form. This machine doubles production, greatly reduces health hazards. It "feels" the felt as it builds up, adjusts air flow for top quality . . .



4. The formed hood of rabbit fur is shrunk, Sturtevant removing the steam from that process. It is then stiffened and dried by Sturtevant controlled ovens. Last operations are blocking and pouncing, calling for Sturtevant control of flying dust and fur.



Sturtevant
Puts Air to Work

NEW PRODUCTS

Conveyorized X-Ray

X-ray photographs of six aluminum castings, up to 5 in. thick, for airplane engines and fuselages are snapped every 30 seconds by a new Conveyorized X-ray Machine developed by Westinghouse Electric & Mfg. Co., Baltimore, for a midwestern automotive manufacturer. A conveyor 3 ft. wide, which halts during exposures, carries trays of castings between two 12-ft. towers, one housing an X-ray tube operating at 140,000 volts, the other with a 220,000-volt tube for thicker castings. The machine, which can inspect over 17,000 castings a day for blowholes and other normally hidden defects, is not limited to the inspection of aluminum.

"Mealpack"

The new Mealpack Container is not a lunchbox to be filled at home with cold foods, but an insulated carrier for hot and cold foods to be packed by caterers or plant kitchens and used as part of a system, developed by Mealpack, Inc., 152 W. 42nd St., New York, for furnishing well balanced meals



to war workers at their posts. After the war, the same system may be extended to dinerless trains, buses, airplanes, schools, and so on.

Each container has spaces for three hot foods, a chilled salad or dessert, a hot or cold beverage, bread, cake, or pie, and eating utensils. Its cover, which is sealed with the plant number of the worker (who has a chance to order his menu in advance), comes off altogether to double as a lap tray. It is planned that trains of small trucks, each bearing 50 filled containers, will be hauled through a plant by a tractor and spotted in convenient locations. Tests indicate

the container keeps food hot or both for at least five hours.

Plastics

Plastics frequently have been plated with gold or silver to make lightweight jewelry with all the luster of metal. Now, however, the Preci-Paper Tube Co., 2023 W. Charles St., Chicago 47, has worked out a plating process wherewith plastics, and other nonconductors (including flexible and rigid plastic tubing) are plated with any plating metal.

It is anticipated that wide use for the process will be found in plating electric parts of many kinds—radio shield—condensers, electrostatic and magnetic shielding—as well as articles in which appearance is an important factor. It is said that “convex and concave surfaces, convolutions, corners, and recesses are thoroughly plated as flat or simple surfaces.”

Laboratory Furnaces

Patterned after its production furnaces, a brand new line of Laboratory Furnaces is coming from the Lindberg Engineering Co., 2444 W. Hubbard St., Chicago 12; a box furnace for drying precipitates, ash determinations, fusions, carbon determinations, organic analysis, etc.; a combustion tube type furnace for carbon determinations, organic analysis, etc.; a crucible furnace for melting metals, thermocouple calibrations, hot plates for heating, distilling, drying, evaporating.

All use low-voltage, high-temperature electric heating elements and the Lindberg “input control” for smooth, flawless heat regulation. The bench-top box furnace has a production-type operating mechanism with handy side lever for quick operation.

New Products Briefs


Also reported this week, not only for their interest to certain designated business fields, but also for their possible impact in the postwar planning of more or less allied fields and business in general, are the following:

Pulpmaking—Allis-Chalmers Mfg. Co., Milwaukee, has equipped at least one pulp mill with its new Hydraulic Log Loader and Washer. It rotates logs through powerful jets of water and across revolving brushes which remove both bark and dead wood.

Metalworking—Frostode Products, 1003 John R St., Detroit 3, is bringing out the new Frostode Coolant Cooler for heavy cutting and grinding operations. It may be described as a specialized electric refrigerator with a capacity of 18 gallons a minute of coolant at 20°F below room temperature. Since it is mounted on casters, it can be moved from machine to machine as required.

NOISE DEMON INVASION OF OFFICE HALTED

Ceiling of Armstrong's Cushiontone wipes out 75% of enemy effectiveness



SCENE FROM BATTLEFIELD

A gigantic commotion on the nerves of office workers came to naught yesterday, when the highly trained Fourth Army of noise demons was confronted with a new and secret weapon on the ceiling of the Consolidated Munitions Corporation office. Attempting to establish a beach head on the ceiling, which aims at noise demons were

NOISE demons pop out from rattling typewriters . . . banging file cabinets . . . noisy conversations. They harry office workers and ruin efficiency.

But three fourths of all noise can be trapped when it strikes a ceiling of Armstrong's Cushiontone. Noise is killed . . . smothered . . . silenced . . . because the 484 deep, noise-thirsty holes in each 12"x 12" unit give Cushiontone a noise-reduction coefficient as high as 0.75. Not even repainting (with ordinary paint and painting methods) affects this permanent high efficiency.

Armstrong's Cushiontone has extra advantages, too. It's surpris-

ingly low in first cost. It is quickly installed—often without any interruption whatever to office routine. Its attractive, ivory-colored surface reflects 73% of the light striking it. And maintenance is no problem at all.

Get this new **FREE BOOKLET**

Find out how Armstrong's Cushiontone has improved other offices and what it can do for yours. Write for your free copy of our new, illustrated folder, "How to Exterminate Office Noise Demons." Armstrong Cork Company, Building Materials Division, 3008 Stevens Street, Lancaster, Pennsylvania.



Armstrong's Cushiontone

Made by the
Armstrong's Linoleum



makers of
and Asphalt Tile

FIRE CHIEF

A patented Hooperwood
"Engineered Canvas"
permanently resistant to
fire, water, weather,
mildew and wear.

**WM. E. HOOPER
& SONS CO.**

PHILADELPHIA
New York • Chicago

MIKE WOODBERRY,
BALTIMORE, MD.

**HOOPERWOOD
COTTON DUCK**



POST-WAR PLANS
Ford, Bacon & Davis
Incorporated
Engineers

**DEVOE
PAINTS**

Notice of Dividends

A quarterly dividend of 1 3/4% (\$1.25) per share on the outstanding 5% Cumulative Preferred Stock and a regular quarterly dividend of 25 cents per share on the Class A and Class B Common Stocks of the Company have been declared payable Sept. 1, 1943, to the respective stockholders of record at the close of business Aug. 20, 1943.

DEVOE & RAYNOLDS COMPANY, INC.
New York

FINANCE

Wire Merger Due

Stockholders of Postal and Western Union are expected to approve consolidation plan at meeting next week.

In line with this country's inherent fear of monopolies, Congress years ago passed legislation specifically barring any Western Union-Postal Telegraph merger. Thus, while there has been much talk at times about the waste in maintaining two duplicating telegraph systems and the economic advantages of but one system under strict government supervision, it has never until now been possible to do anything about it.

• **Hypothetical Competition**—However, the very monopoly so feared by Congress has actually been developing—and very rapidly—in recent years. Postal Telegraph has always been small potatoes along side Western Union, which owns 208,321 miles of domestic pole lines, 1,904,963 miles of wire, 30,341 miles of ocean cable, and 18,677 public telegraph offices plus 13,500 agency offices. Postal actually has never been in a position to offer that giant any real competition.

Moreover, even the small part of the total domestic wire business Postal once did manage to acquire in "the good old days" has since slipped steadily out of its hands. Recently Western Union's share of all available traffic has grown to around 85%.

• **Dependent on RFC**—As a result, Postal has had to depend more and more for its revenues on fees received for handling domestic transmission of foreign messages for others. Such business, particularly with present war restrictions, obviously isn't enough to support the organization. Not even its drastic reorganization several years ago has proved of much help in its fight for survival. For some time now, to offset its large yearly deficits and actually remain in existence, Postal has been virtually dependent on the continuity of Reconstruction Finance Corp. loans (which added up to \$9,000,000 at last report) to carry on operations.

The Federal Communications Commission long has sensed the situation. Also, the commission became aware of the need to strengthen the position of the telegraph industry if the companies were to carry on successfully in the future. Real inroads have been made by the telephone, teletype, radio, air mail, etc. The FCC, therefore, recommended new legislation to Congress

which would permit the separate owners of domestic telegraph companies and the international carriers of cable and cable messages. This was at done, after much debate, early this (BW—Feb. 27 '43, p. 106), and Western Union and Postal stockholders are scheduled to vote Aug. 10 on a plan of consolidation.

• **Debts near \$11,000,000**—Under the plan, Western Union has agreed to buy, by Oct. 10, 1943, all the assets and business of Postal and to assume obligations, including RFC loans and certain pension liabilities. The amount of net debt (current liabilities and RFC debt less cash and receivables assumed) is set at \$10,800,000.

Western Union's present \$100 par stock, under the plan, would be changed par-for-par for new no-par stock. A noncumulative preference stock paying a \$2 dividend. The Postal property would be acquired by issuance of 30,124 shares of a class B stock. The class B would share equally with the A shares in the distribution of any dividends after payment of the A stock's \$2 requirement, would be exchangeable for Postal preferred on a par-for-par basis. Each share of Postal common would get one-twentieth of a Western Union B share. A year after its issuance the B stock could be converted to the A shares on a basis of five B for three A.

• **Approval Expected**—The general impression now is that the plan will be approved by the stockholders' vote—the merger, in fact, is already in the bag even though it must be approved later to become effective, by the FCC and various state regulatory bodies.

However, not every one is equally sanguine about the outlook for the consolidation. It is pointed out that Western Union has been slipping in the field it ruled so long unchallenged. Despite the stimulation from war which has sent business activity to the highest level known, 1942 revenues of Western Union fell 9% short of the 1929 level. But this comparison was caused, at least in part, by lower rates. Number of messages handled last year actually ran 7% ahead of 1929.

• **Debt Reduced**—Despite some lean business years, Western Union has been able, since 1935, to retire \$25,000,000 of debt, including all bank loans and funded debt maturities prior to 1950. It is expected also that Western Union will offset some of the competition of other types of communication by the ultimate purchase of A. T. & T.'s teletype division and by its mechanization program.

Western Union's chief burden in the past has been high wage costs as its pay-

benefits, pensions, and social security tax expenses took 63¢ out of dollar of revenues in 1942, 64¢ in 1943, and 61¢ in 1940. Average yearly have risen a third since 1935, the end is not yet in sight as a result of the National War Labor Board award, effective to last August, will likely raise payroll \$1,200,000 further.

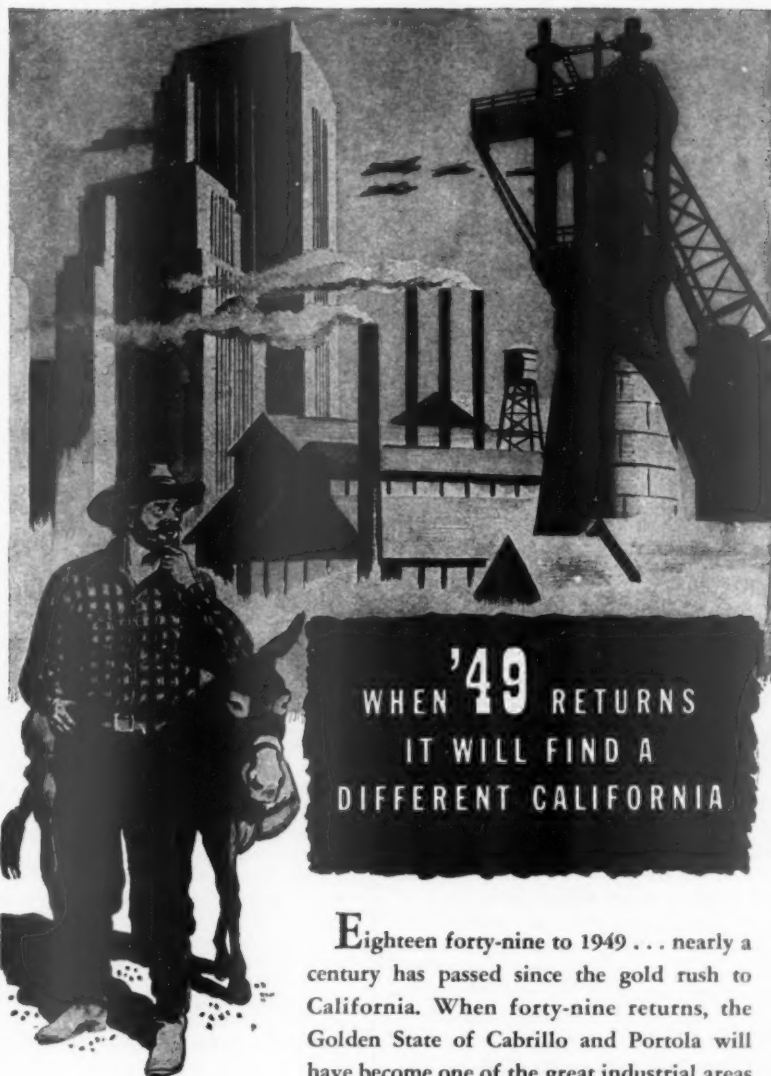
Provision for Workers—The merger is going to cut the wage bill much at the start; in fact, it is likely to freeze cost at present high levels for a while. This is because labor provisions in the legislation granting the right to organize stipulate that those employed by the company prior to Mar. 1, 1941, will be retained for four years and if they have since that date are entitled to an unchanged payroll status for a period of one year after the merger at least equal to the one they worked up to then.

After a late start, Western Union's reorganization program is moving along nicely, with priorities secured by the company overcoming war construction difficulties. How long this will take to complete has not been officially stated, but guesses usually center around two years. Ultimate saving is put at around \$1,000,000 annually. Elimination of many of the 22,000 duplicating offices means of the consolidation offers opportunities for substantial savings, as it is believed at least 4,000 can be closed. Recently, an FCC order provided that rates on domestic telegrams for the government, from July 1 on, were to be cut 80% of the normal public rate to just 60% as before. This change, however, is believed more than offset by the wage increase and higher depreciation charges adopted last September to meet FCC requirements.

Follow Victory

Pennsylvania R.R. gets ICC approval on sale of affiliate's bonds by negotiation, but case will settle bidding fight.

The recent attempt of those two mid-western advocates of competitive bidding—investment houses, Halsey, Stuart & Co. and Otis & Co.—to force the Pennsylvania Railroad System to use the auction block in refunding its Pennsylvania, Ohio & Detroit 4½% bonds with new 3½'s (BW—Jul. 3'43, p102) has culminated in a victory for the road. The ICC finance division finally approved the financing contract with Kuhn, Loeb & Co. by a two-to-one vote. However, as to what has arisen out of the hearings, it was one of those victories that, in the long run, may turn out to be a very sour triumph for the rail industry. **Points in Favor**—The commission did specifically reject the contention that



Eighteen forty-nine to 1949 . . . nearly a century has passed since the gold rush to California. When forty-nine returns, the Golden State of Cabrillo and Portola will have become one of the great industrial areas of the Nation. This transformation, effected

largely in the past ten years and now accelerated by total war, makes California a major consumer market of 7,500,000 people and a vital industrial as well as agricultural producer.

Bank of America serves this modern California through branches in more than 300 cities and towns—through a branch banking system which affords an invaluable service and an "on-the-spot" representation to businessmen and bankers throughout the country.

Bank of America

NATIONAL TRUST AND SAVINGS ASSOCIATION

MEMBER . . . FEDERAL RESERVE SYSTEM—FEDERAL DEPOSIT INSURANCE CORPORATION

Complete Banking Facilities - Commercial - Savings - Trust - Safe Deposit
Main offices in two reserve cities of California . . . San Francisco - Los Angeles
Branches in more than 300 California cities and towns
Total resources more than two and a half billion dollars



Blue and Gold BANK of AMERICA TRAVELERS CHEQUES are available through authorized banks and agencies everywhere. Carry them when you travel.

LIGHT FROM FLOORS

speeds
war production



DARK FLOORS waste light by absorbing it. White cement floors save light by reflecting it. The advantages of making giant reflectors of your factory floors are shown by installations at Boeing, Consolidated, Douglas and North American Aircraft plants. In the Consolidated plant at Fort Worth, tests by General Electric show that the white cement floor which adjoins a gray cement floor in the same plant reflects 61% more light to under side of wings and 20% more light to vertical work surfaces.

Light-reflecting floors made with Atlas White cement have many other advantages. They encourage cleanliness, are easy to maintain, reduce disturbing shadows, give workers better and more comfortable light, improve morale, increase production, and reduce accidents, errors and spoilage.

Send for new book, "Light From Floors." It tells the complete story of light-reflecting floors made with Atlas White cement. Write today. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

B-F-30

**ATLAS
WHITE CEMENT**
For Light-Reflecting Floors

THE MARKETS

Since Mussolini, with the bases full and none out, was yanked from the pitcher's box and sent to the showers, investors seem to have pretty much lost their former avid desire to hold securities. Except for two widely separated and feeble technical rallies, prices have broken pretty sharply under the impact of such heavy and determined liquidation that the New York Stock Exchange experienced its biggest July since 1938.

● **Minimum of Selectivity**—Losses registered, also, have completely wiped out the laborious gains of months past. The selling in stocks, moreover (unlike the situation in the bond market where liquidation has been pretty much confined to the so-called war issues), has remained quite indiscriminate. Still, on the whole, the war stocks have suffered the most, and the rails, where losses of 15% or more from recent highs are very common, have given a worse performance than the industrials.

Some had hoped, at first, that the decline would not assume the size it has, and that it would confine itself within limits which would warrant the present trend's being considered, technically speaking, only a secondary movement. This, however, has been far from true, as the pattern now definitely indicates to all but incorrigible bulls that the backbone of the recent 14-month advance has been broken. Also, most market students currently expect no real resistance to the present down-drift, except for occasional technical rallies, till the price averages have moved some points lower.

● **Tax on Speculation**—After all, time has taught the experienced trader not to expect any vigorous rally to follow quickly a break of the size already seen. Also, a

drastic readjustment almost always generates, within speculators and investors alike, a great desire to sit on the sidelines for a time and assume that sober and realistic attitude which so rarely breeds excessive optimism. Rumors, too, that a special tax on speculative profits is being considered may have a dampening effect for a time.

Thus far, the cash buying characterizing the recent bull market has made unnecessary any great amount of margin calls, despite some of the very sharp breaks seen. Also, margin buying by the trader in cats and dogs, who may think his low-priced favorites are again in a buying range, will be hampered for some time ahead. This is because of the growing number of stocks that have slipped below the \$5 mark and that are consequently no longer eligible for marginal operations.

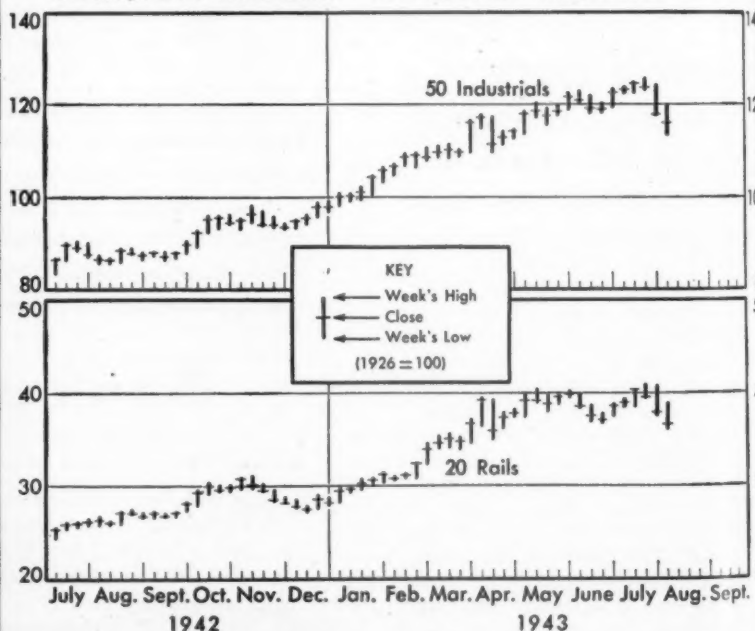
● **London's Attitude**—While the London market has also experienced some selling in the home rails, the British are showing no disposition to dispose of their holdings in the heavy industries.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	115.9	117.9	123.1	86.7
Railroad	36.7	37.9	38.9	26.4
Utility	49.9	50.5	50.5	30.4
Bonds				
Industrial ...	116.5	116.5	116.8	108.5
Railroad	98.8	99.7	99.6	84.7
Utility	115.5	115.4	114.9	104.2
U. S. Govt. ...	112.8	112.9	113.4	110.5

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

the new issue was one especially adapted for competitive bidding. Also, it termed the offer of the objectors to buy the bonds at 102 (against Kuhn, Loeb's original price of 100) as made "on the spur of the moment and without adequate consideration."

Other portions of the decision, however, were not so favorable. The ICC indicated that it was not convinced that the Pennsylvania had received the best price possible for the new issue or that it could not have retired some of the old bonds with cash on hand. Also, the ICC thought the spread between the price of 100 received by the road and the offering price to the public (101½) was too great and ordered this reduced by raising the sale price to 100½.

Mellon Pulls Out—The three commissioners who heard the case all objected, as well, to the interlocking directorships between the road and many of the institutions handling the sale of the new bonds. Evidence was introduced, for example, to show that Richard Mellon, director of the Pennsylvania, was also the owner of 50% of the stock of the Mellon Securities Corp., which took over \$2,000,000 worth of the bonds as a member of both the underwriting and the selling groups. (Mellon Securities withdrew from the underwriting.) Whether such cross-directorship represented a violation of the "spirit and intent of . . . the Clayton Antitrust Act" was a question the commissioners said they were not called upon to decide. Nevertheless, they did very definitely give vent to their lack of sympathy.

Probably the most important sequel to this fight to compel competitive bidding on all rail issues (this is now the requirement in the case of utility securities) is the ICC's resulting decision to look into all aspects of that situation. In its order establishing such an investigation, the commission says it will seek to determine just what classes of rail securities competitive bidding might properly be applicable to, and what regulations should be prescribed in connection with such sales.

Nothing Is Settled—Certainly the Pennsy's victory in this case hasn't buried the competitive bidding ghost; instead the ghost seems to have received a blood transfusion.

UTILITY MOVES TO COMPLY

North American Co. this week gave the Securities & Exchange Commission its plan (BW—Jul.31'43,p103) for compliance with the holding company law's death sentence. The general details—particularly the idea of setting up four regional holding companies—held no surprises for those who follow the company's affairs. Similarly, the formation of a firm to be known as the Liquidating Co. also had been anticipated.

Stockholders would be given their



APPOINTMENT IN TULAGI

IT'S "BOUND TO GET THERE" WITH . . .

Acme Steelstrap

THIS shipment had a date with U. S. Armed Forces in the far Pacific. It kept that appointment . . . because it was packed right and strapped right. Proper packing kept it free from damage all the way to destination.

In co-operation with Government services, carriers, and manufacturers, Acme engineers are helping to assure adequate protection for overland and overseas shipments of practically

every type of war product . . . packed in boxes, cartons, crates, bales, bundles or on skids. For carload loadings . . . Acme Unit Load Bands are used to make them "Bound to Get There."

Acme Steelstrap complies with all Federal Strapping Specifications. Applied with Acme strapping tools, Acme Steelstrap provides a faster, more economical way of moving vital shipments to the fighting fronts in all parts of the world.



If you are engaged in war production, Acme engineers will be glad to help you plan for the safe arrival of your products. Contact the Acme office nearest you.

ACME Steelstrap PROCESS

ACME STEEL COMPANY General Offices: 2828 Archer Ave., CHICAGO, ILLINOIS
 Atlanta Baltimore Boston Detroit Indianapolis Los Angeles Milwaukee
 New Orleans New York Philadelphia Pittsburgh Portland
 St. Louis St. Paul San Francisco Seattle
ACME STEEL COMPANY OF CANADA, LTD., Montreal, Toronto, Winnipeg, Vancouver

ADVERTISERS IN THIS ISSUE

Business Week—August 7, 1943

ACME STEEL CO.....105	HAMMERMILL PAPER CO.....71
Agency—THE BUCHEN CO.	Agency—BATTER, BARTON, DUBSTINE & OSBORN, INC.
AIR-MAZE CORP.60	HERCULES POWDER CO., INC.....25
Agency—FULLER & SMITH & BOSS, INC.	Agency—FULLER & SMITH & BOSS, INC.
AIRESEARCH MFG. CO., DIVISION OF THE GARRETT CORP.93	WM. E. HOOPER & SONS CO.....102
Agency—J. WALTER THOMPSON CO.	Agency—MCLAIN ORGANIZATION, INC.
AMERICAN BRASS CO.....81	HOTEL MAYFAIR.....102
Agency—IVBY & ELLINGTON, INC.	Agency—GARDNER ADVERTISING CO.
AMERICAN CHAIN & CABLE CO., INC. 91	INTERNATIONAL CHAIN CO.....29
Agency—REINHOLD-ELLIS-YOUNGHEEN & FINN, INC.	Agency—THE AITKIN-KYNETT CO.
AMERICAN CREDIT INDEMNITY CO.....92	INTERNATIONAL MINERALS & CHEMICAL CORP.63
Agency—SHELDON, QUICK & McELROY, INC.	Agency—C. FRANKLIN BROWN & CO.
AMERICAN MAGNESIUM CO.....65	KEARNEY & TRECKER.....41
Agency—FULLER & SMITH & BOSS, INC.	Agency—KLAU-VAN PETERSON-DUNLAP & ASSOC., INC.
AMERICAN TELEPHONE & TELEGRAPH CO.....53	KEASBEY & MATTISON CO.....4
Agency—NEVILL-EMMETT CO.	Agency—GRAND-MARTON, INC.
ARMSTRONG CORK CO.....101	KEYSTONE STEEL & WIRE CO.....70
Agency—BATTER, BARTON, DUBSTINE & OSBORN, INC.	Agency—MACB ADVERTISING AGENCY, INC.
ASSOCIATION OF PREFORMED WIRE ROPE MANUFACTURERS.....54	KOPPERS CO.....4th Cover
Agency—REINHOLD-ELLIS-YOUNGHEEN & FINN, INC.	Agency—KETCHUM, MACLEOD & GROVE, INC.
ATLAS POWDER CO.....89	LINDSAY & LINDSAY.....62
Agency—THE AITKIN-KYNETT CO.	Agency—THE PENNSYLVANIA CO.
ATLAS PRESS CO.....90	MANNING, MAXWELL AND MOORE, INC.....94
Agency—STARK & SCHODENMAKER CO.	Agency—BRIGGS & VAILLEY, INC.
BANK OF AMERICA.....103	McGRAW-HILL BOOK CO., INC.....98
Agency—CHAR. B. STUART, INC.	THE MERIAM CO.....50
BAUSCH & LOMB OPTICAL CO.....49	Agency—THE BATTLE-KERR CO.
Agency—CHARLES L. RUMRILL & CO. ED WOLFF & ASSOCIATES	METROPOLITAN LIFE INSURANCE CO.....21
BELL & HOWELL CO.....24	Agency—YOUNG & RUBICAM, INC.
Agency—HENRI, HUBST & McDONALD, INC.	THE NEW JERSEY ZINC CO.....9
BOEING AIRPLANE CO.....79	NORTHERN PACIFIC RAILWAY CO.....44
Agency—N. W. AYER & SON, INC.	Agency—BATTER, BARTON, DUBSTINE & OSBORN, INC.
BRIDGEPORT BRASS CO.....73	OHIO TOOL CO.....36
Agency—HAROLD ADVERTISING CORPORATION	Agency—MEERMAN, INC.
BUELL ENGINEERING CO., INC.....62	OWENS-CORNING FIBERGLAS CORP.....45
Agency—TRACT, KENT & CO., INC.	Agency—YOUNG & RUBICAM, INC.
BUFFALO FORGE CO.....28	PERE MARQUETTE RAILWAY.....3
Agency—MELVIN F. HALL ADVERTISING AGENCY, INC.	Agency—KENTON & ECKHART, INC.
BURROUGHS ADDING MACHINE CO.....23	PLUSWOOD, INC.....34
Agency—CAMPERELL-EWALD CO., INC.	Agency—CHARLES MEISNER & ASSOC., INC.
CLARAGE FAN CO.....10	PRESSED STEEL TANK CO.....49
Agency—W. J. WILLIAMS ADVERTISING AGENCY	Agency—THE BUCHEN CO.
THE CLEVELAND ROCK DRILL CO.....43	PUCK—THE COMIC WEEKLY.....59
Agency—THE BATTLE-KERR CO.	Agency—CHILL & FREEDMAN, INC.
CONE AUTOMATIC MACHINE CO.....47	THE PULLMAN CO.....84
Agency—HENRY A. LOUDON ADV. AGENCY	Agency—YOUNG & RUBICAM, INC.
CONTINENTAL CAN CO., INC.....74	REYNOLDS METALS CO.....83
Agency—BATTER, BARTON, DUBSTINE & OSBORN, INC.	Agency—BUCHANAN & CO., INC.
THE CRAFT MFG. CO.....50	RUSSELL, BURDALL & WARD BOLT & NUT CO.....61
Agency—FRANK, FULLER & FREEDMAN, INC.	Agency—JAMES THOMAS CHIRBO CO.
DeHAVILLAND AIRCRAFT OF CANADA, LTD.....54, 55	RUSTLESS IRON & STEEL CORP.....51
Agency—STERN & MILLER, LTD.	Agency—VAN SANT, DUGDALE & CO., INC.
DELUXE PRODUCTS CORP.....68	S.K.F. INDUSTRIES, INC.....2
Agency—VAN AUBURN-HAGLAND, INC.	Agency—GRAND-MARTON, INC.
DEVOE & REYNOLDS CO., INC.....102	SEABOARD RAILWAY.....85
Agency—ALBERT FRANK-GUNTHER LAW, INC.	Agency—THE CAPLES CO.
HENRY DISTON & SONS, INC.....44	THE STUDEBAKER CORP.....26
Agency—GRAND-MARTON, INC.	Agency—BOOTH, WILLIAMS & CUNNINGHAM, INC.
DODGE MFG. CORP.....95	B. F. STURTEVANT CO.....100
Agency—KLAU-VAN PETERSON-DUNLAP & ASSOC., INC.	Agency—RICKARD & CO.
DUREZ PLASTICS & CHEMICALS, INC.....31	TOLEDO SCALE CO.....97
Agency—J. M. MATTHEW, INC.	Agency—HOBSON-FALLER-REICHERT, INC.
EASTMAN KODAK CO.....35	TOWMOTOR CORP.....75
Agency—J. WALTER THOMPSON CO.	Agency—HOWARD SWINE ADV. AGENCY
ELECTRIC EYE EQUIPMENT CO.....99	UNION SPECIAL MACHINE CO.....107
Agency—ALMON BROOKS WILDER, INC.	Agency—RUSSELL T. GRAY, INC.
ELECTRIC WHEEL CO.....50	UNITED AIR LINES.....33
Agency—THE RIDGWAY CO., INC.	Agency—N. W. AYER & SON, INC.
THE FAFNIR BEARING CO.....3rd Cover	UNITED GAS PIPE LINE CO.....57
Agency—HOBSON-NOTES CO.	Agency—BOKELL & JACOBS, INC.
FAIRCHILD ENGINE & AIRPLANE CORP. 6	U. S. FIDELITY & GUARANTY CO.....77
Agency—CHILL & FREEDMAN, INC.	Agency—VAN SANT, DUGDALE & CO., INC.
FORD, DACON & DAVIS, INC.....102	UNIVERSAL ATLAS CEMENT CO.....104
Agency—McCANN-ERICKSON, INC.	Agency—BATTER, BARTON, DUBSTINE & OSBORN, INC.
GENERAL ELECTRIC CO.....39	VAUGHAN MOTOR CO.....38
Agency—N. W. AYER & SON, INC.	Agency—HOBBS & LELAND
GENERAL ELECTRIC CO.....22	WAGNER ELECTRIC CO.....30
Agency—THE LLOYD H. HALL CO.	Agency—ARTHUR H. MOORE, INC.
GENERAL ELECTRIC CO.....12	WARNER ELECTRIC BRAKE MFG. CO.....48
Agency—NEWELL-EMMETT CO.	Agency—KLAU-VAN PETERSON-DUNLAP & ASSOC., INC.
THE GLOBE-WERNICKE CO.....76	WARNER & SWASEY CO.....2nd Cover
THE B. F. GOODRICH CO.....1	Agency—THE GRISWOLD-ERLEMAN CO.
Agency—THE GRISWOLD-ERLEMAN CO.	Agency—GRAY & ROBERTS
GRAYBAR ELECTRIC CO.....58	WILLSON PRODUCTS, INC.....8
Agency—G. M. BARFORD CO.	Agency—JAMES G. LAMB CO.
	THE J. G. WILSON CORP.....37
	Agency—THE RALPH H. JONES CO.

proportionate slices of securities of the new regional holding companies and certain other North American investments (valued at \$30.80 a share; they would be required, at the same time, to put up cash to pay off indebtedness and preferred stock of the parent company (requiring an estimated \$11.67).

The four new regional companies would center on the North American properties grouped about St. Louis, Milwaukee, Cleveland, and Washington, D. C.

Use the Teapot

New crop of investors has swamped safe-deposit facilities. Banks now offer special services; war bonds vex reserve banks.

Time was when the owners of securities had no trouble finding enough safe-deposit boxes in which to store them. However, with the new crop of war bond holders alone now numbering way up in the millions and growing steadily, and priorities preventing the manufacture of additional safe-keeping facilities, that picture of late has changed considerably.

● **There's Space in Gotham**—Not so much in New York, where supply still exceeds demand except in the case of some residential and suburban branch banks, but in many other sections of the country this problem has been growing increasingly acute. From Canada, too, the story is the same.

Some Cincinnati banks, for example, currently report long waiting lists of applicants for boxes. In many Chicago banks, too, occupancy of safe-deposit facilities, already at record levels, is still growing rapidly with the saturation point in sight. These are not just isolated instances.

● **Special Services**—Many banks are cashing in on the insatiable demand for boxes by offering "safe-keeping" accounts especially designed for the new war bond buyers. One such plan is for banks to offer to keep customers' war bonds up to a fixed amount for a \$2.50 annual charge. They permit monthly deposits of new purchases.

When the Treasury first began to sell baby bonds, it told buyers the twelve Federal Reserve Banks would provide them with free safe-keeping facilities, probably to forestall trouble arising out of demands for new bonds to replace those lost by inexperienced holders. Over 200,000 have already availed themselves of the privilege.

● **Bigger Job in Sight**—What really worries the Federal Reserve, however, is not its present safe-keeping accounts. It is the millions of potential accounts it may some day have to handle.

THE TRADING POST

What We Are Fighting For"

By the end of this year more than a million men will have been discharged from the Army since the beginning of the draft (BW—Jun. 26 '43, p. 98). It might be thought that the restoration of these men to civilian life would provide a sort of dress rehearsal for the general demobilization that is to come.

Obviously it cannot offer a precise pattern for the big job. The individuals now concerned may not be typical. The very fact of their discharge at this time suggests that their cases may not be on all fours with those of the millions who will see the war through. Yet Selective Service can learn something of what must be done later on a vast scale. But I doubt whether it will learn much concerning one vital factor of demobilization. That is the mental attitude of the returning service men.

With all due allowance for individual variations, I wonder what military service will do to the average young man. Will it make him more self-reliant or more dependent on authority? Will military discipline carry over as individual self-discipline or will it be overwhelmed by a wave of organized mob rule such as now dominates the political scene? Will the economic security of military life breed a desire for social security in all its forms or will it, by reaction, revive a yearning for individual social and economic freedom? In short, what kind of environment will the returning servicemen really want?

Many words are spent on telling us what those men are supposed to be fighting for. Witness the highly propagandized "Four Freedoms," so much more significant in what they ignore than in what they cover, the brutally forthright drive of the professional unionists for political power, the naive idealism of those who project a new world as though the planet had been wiped clean to receive their designs, the smug egotism of those who resist all change that may not serve their very special interests. But the grotesque diversity of these and other conceptions of "what the boys are fighting for" suggests that their promoters actually haven't the foggiest notion of what "the boys" themselves think about it.

Our postwar task would indeed be much simpler if we could determine whether these men are fighting for the right to rebuild their own lives in a competitive individualistic society or for the privilege of sharing in a collectivist society designed to guarantee them minimum living standards free from individual risk and responsibility. Will they be more interested in oppor-

tunity for the individual to go as far as he is willing and able or in security for the mass of people against the hazards of competitive living?

In posing that question I lay myself open to the charge of dealing in "black or white" alternatives. That is not my intention. I know that many shades of gray lie between the extremes of untrammelled individual opportunity and guaranteed mass security. But those who are so articulate about "what we are fighting for" do not deal in the grays; their stuff is all black or white.

In this connection we shall do well to remember that many service-men never have had to think very much about what individual opportunity means to them. Many of them never have held jobs. Others have suffered from unemployment, have seen the savings of their parents wiped out, or have otherwise looked upon the seamy side of our economic system. They have lived most of their lives through a period of extravagant propaganda for "security" and of cynical scorn for "opportunity." Through their years of awareness, they have been treated to a dilute bath of the same solution that, in concentrated form, has engulfed their German, Italian, and Russian contemporaries. So those of us who believe in the ability of the "opportunity system" to cope with postwar needs may be deluding ourselves when we take for granted the sympathetic understanding of the service-men.

But of one thing we can be sure. The men who will come back after having won a war will be a mighty important and vocal minority in shaping our future. And I suspect that we can safely cut through all the self-seeking hokum as to "what the boys are fighting for" and assume that they are fighting simply to preserve a country in which they still will enjoy the right to decide from time to time just what they do want. We at home and they out there can agree, I hope, that that in itself is worth fighting for.

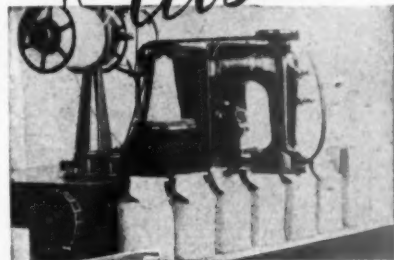
And I am inclined to think that the attitude of the returning service-men will be determined less by the propaganda of their self-appointed spokesmen than by what they find when they get home. If those of us who believe in "opportunity" can manage to provide opportunities, the boys will decide they have been fighting for opportunity. But if we fail in that, it is fairly certain that they will decide they have been fighting for security.

The most effective propaganda for the "opportunity system" will be our success in keeping opportunity open against the day of peace.

W.C.

the New Union Special

DUBL
TAPE
Closure



—a big
advantage
on small
paper bags!

FOR neat, sturdy,
sift-proof, inex-
pensive containers,

you can't beat small paper bags closed with the Union Special Dubl-Tape Sewed Closure. The Union Special 60000 C sewing head is capable of handling the output of the fastest filling equipment. Operation is simple and can be made completely automatic. This machine applies a strip of tape to each side of the bag top, runs a secure stitch through the tape and bag, clips the tape and trims the bag top automatically.

For complete details on this modern high speed bag closer and other equipment for closing all sizes of paper or fabric bags, write today. UNION SPECIAL MACHINE CO., 408 N. Franklin Street, Chicago, Illinois.

World's Largest Exclusive Builder
of Industrial Sewing Machines

CONSERVE FABRIC BAGS

With the Union Special Bag patching machine, you can patch and repair fabric bags to greatly extend their useful life. Write today for full details on this efficient conservation unit.



Union Special
FILLED BAG CLOSERS

THE TREND

WHAT DO YOU MEAN BY "RECONVERSION"?

Does Italy mark a turning point in the trend from butter to guns which has run with accelerating force for the three years since the start of national defense?

This is merely the current form of a question which has been asked with increasing frequency since the tide in the war was turned months ago—how soon now the reconversion? Finding the answer—or, rather, weighing the factors that give the answer—has become a paramount problem, not only for business planning but also for political-military-economic high policy.

For clearly, this is more than a question of when the war will end. Implicit in the very asking is an assumption that possibly we can reconvert before the war ends. That is what must be investigated—for the period before Germany is licked as well as for after, when we shall have only Japan to fight.

• **First, what is reconversion?** The recent changeover of locomotive builders from tanks to railroad equipment for Army use abroad is reconversion for the companies involved. But it is not reconversion insofar as the production is still for war. All that has happened is that the military's need for tanks has, at this point, become less than its need for the companies' normal output.

There are other closely allied types of "reconversion" that are more complex conceptually and more difficult to effect. One would involve a transfer of resources from the "hard goods" of fighting to the "soft goods" of rehabilitation (BW—Jun.26'43,p116). But the important thing is that through all such "reconversions" the war effort remains the ruling end to economic activity; only particular needs change.

For clarity, we may contrast with these "reconversions" the kind that would reflect a deliberate decision to diminish the war effort before the end of the war. It is this possibility which must be examined. In the baldest instance, it would encompass the release of the automotive industry from the building of planes to the mass production of passenger cars for pleasure use.

• **Here would be the logic behind such a reconversion:** At some point, the demands of the military become satiated; they have not only "enough" to do their job, but also "too much," and even "too much too much." For, initially, the military request a basic force of some definite size which they require to win; the building of such a force absorbs the undivided effort of the entire production machine for a considerable time. But once the force is built—once the pipelines of military supply are filled—demands become confined to replacement needs. And battle experience shows that attrition, destruction, and obsolescence of basic equipment run at a rate much lower than our capacity to produce.

That is the argument. In considering it, we may pass by the objection that no other nation in this war has

ever reached a point where war demands were satiated. Certainly no nation could so long as it was losing, and the Axis in its heyday had to prepare against the possibility of our entry. Only we can so much as speculate of such a reconversion, because only we have so huge an armament capacity.

• **But in the last analysis,** a decision to reconvert must rest upon a weighing of the probable costs of alternatives. On the one hand, premature reconversion might cost us victory itself; or, at least, time and lives which could otherwise be saved. On the other hand, if we delay reconversion beyond the point necessary, we shall be wasting tremendous economic efforts that could be put to better use; it is precisely for this reason that we would not mobilize 10,000,000 men or spend 100 billion dollars a year were we involved in a war with, say, Afghanistan alone.

The costs of defeat being so overwhelming compared to the waste of an over-long, over-large war effort, no one could regard the alternatives for action as even balanced until we could estimate our chances of losing as perhaps 0.0001%, and the chances of our wasting economic effort as perhaps 99.9999%. And even once victory becomes 100% certain, we must take account of the possibility of losing time or lives.

Clearly—just as Pearl Harbor left no room for choice—the alternatives must constantly be measured against the facts of war. For instance, should the strength of Nazi morale and of German military defense surprise us and hold us off effectively throughout 1944, the presumption would have to be accepted that the military do not have "enough." Contrariwise, should the results expected from our present strategy follow along on or ahead of schedule, they would increasingly support the argument for reconversion. Similarly, what we "need" to defeat Japan alone as quickly and as cheaply as possible must depend on the nature of the operation which the military find it desirable to conduct and on the success of such an operation. If it is proved to be a sea-air war for the most part, the public will not long support the accumulation of giant stocks of equipment for ground warfare which no one more than pretends might be required.

• **Business men, like others,** will constantly tot up and revise the balance sheet of costs and probabilities involved in reconversion. But for their planning, it will be wise to remember that ultimately it is the public—and the public's representatives who make high policy—that must decide. It is they who will figure how the odds stack up against the costs—when or whether the risk on sons', husbands', and brothers' lives has been cut so low as to warrant the return in part to more normal patterns and standards of living. Reconversion will be the people's choice.

The Editors of Business Week

atiate
ing, an
e poss
late o
uge a

t mus
natives
cost a
could
recon
wasting
better
ot mo
a year
one.
pared
no one
lanced
erhaps
effort
comes
lity of

choice
gainst
gth of
rise us
sump-
o not
ected
ad of
ment
defeat
must
ilitary
ch an
most
ation
which

and
s in-
ill be
d the
must
k up
hus-
war-
and-
oice.

Week
1943

U.S. ADM
LIBRARY

SII
EE
DE